

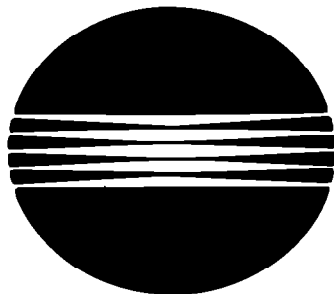
# Di151

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## SERVICE MANUAL

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[GENERAL]



MINOLTA

# Safety Precautions for Inspection and Service

When performing inspection and service procedures, observe the following precautions to prevent accidents and ensure utmost safety.

\* Depending on the model, some of the precautions given in the following do not apply.

Different markings are used to denote specific meanings as detailed below.



## **WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



## **CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

The following graphic symbols are used to give instructions that need to be observed.



Used to call the service technician's attention to what is graphically represented inside the marking (including a warning).



Used to prohibit the service technician's from doing what is graphically represented inside the marking.



Used to instruct the service technician's to do what is graphically represented inside the marking.



## **WARNING**

1. Always observe precautions.



- Parts requiring special attention in this product will include a label containing the mark shown on the left plus precautionary notes. Be sure to observe the precautions.
- Be sure to observe the "Safety Information" given in the Operator's Manual.

2. Before starting the procedures, be sure to unplug the power cord.



- This product contains a high-voltage unit and a circuit with a large current capacity that may cause an electric shock or burn.
- The product also contains parts that can jerk suddenly and cause injury.
- If this product uses a laser, laser beam leakage may cause eye damage or blindness.

3. Use the specified parts.



- For replacement parts, always use the genuine parts specified in the manufacturer's parts manual. Installing a wrong or unauthorized part could cause dielectric breakdown, overload, or undermine safety devices resulting in possible electric shock or fire.
- Replace a blown electrical fuse or thermal fuse with its corresponding genuine part specified in the manufacturer's parts manual. Installing a fuse of a different make or rating could lead to a possible fire. If a thermal fuse blows frequently, the temperature control system may have a problem and action must be taken to eliminate the cause of the problem.

4. Handle the power cord with care and never use a multiple outlet.



- Do not break, crush or otherwise damage the power cord. Placing a heavy object on the power cord, or pulling or bending it may damage it, resulting in a possible fire or electric shock.
- Do not use a multiple outlet to which any other appliance or machine is connected.
- Be sure the power outlet meets or exceeds the specified capacity.

5. Be careful with the high-voltage parts.



- A part marked with the symbol shown on the left carries a high voltage. Touching it could result in an electric shock or burn. Be sure to unplug the power cord before servicing this part or the parts near it.

6. Do not work with wet hands.



- Do not unplug or plug in the power cord, or perform any kind of service or inspection with wet hands. Doing so could result in an electric shock.

7. Do not touch a high-temperature part.



- A part marked with the symbol shown on the left and other parts such as the exposure lamp and fusing roller can be very hot while the machine is energized. Touching them may result in a burn.
- Wait until these parts have cooled down before replacing them or any surrounding parts.

8. Maintain a grounded connection at all times. (This item may not apply in the USA.)



- Be sure to connect the ground wire to the ground terminal even when performing an inspection or repair. Without proper grounding, electrical leakage could result in an electric shock or fire.
- Never connect the ground wire to a gas pipe, water pipe, telephone ground wire, or a lightning conductor.

9. Do not remodel the product.



- Modifying this product in a manner not authorized by the manufacturer may result in a fire or electric shock. If this product uses a laser, laser beam leakage may cause eye damage or blindness.

10. Restore all parts and harnesses to their original positions.



- To promote safety and prevent product damage, make sure the harnesses are returned to their original positions and properly secured in their clamps and saddles in order to avoid hot parts, high-voltage parts, sharp edges, or being crushed.
- To promote safety, make sure that all tubing and other insulating materials are returned to their original positions. Make sure that floating components mounted on the circuit boards are at their correct distance and position off the boards.



## CAUTION

### 1. Precautions for Service Jobs



- A toothed washer and spring washer, if used originally, must be reinstalled. Omitting them may result in contact failure which could cause an electric shock or fire.
- When reassembling parts, make sure that the correct screws (size, type) are used in the correct places. Using the wrong screw could lead to stripped threads, poorly secured parts, poor insulating or grounding, and result in a malfunction, electric shock or injury.



- Take great care to avoid personal injury from possible burrs and sharp edges on the parts, frames and chassis of the product.
- When moving the product or removing an option, use care not to injure your back or allow your hands to be caught in mechanisms.

### 2. Precautions for Servicing with Covers and Parts Removed



- Wherever feasible, keep all parts and covers mounted when energizing the product.
- If energizing the product with a cover removed is absolutely unavoidable, do not touch any exposed live parts and use care not to allow your clothing to be caught in the moving parts. Never leave a product in this condition unattended.
- Never place disassembled parts or a container of liquid on the product. Parts falling into, or the liquid spilling inside, the mechanism could result in an electric shock or fire.



- Never use a flammable spray near the product. This could result in a fire.
- Make sure the power cord is unplugged before removing or installing circuit boards or plugging in or unplugging connectors.
- Always use the interlock switch actuating jig to actuate an interlock switch when a cover is opened or removed. The use of folded paper or some other object may damage the interlock switch mechanism, possibly resulting in an electric shock, injury or blindness.

### 3. Precautions for the Working Environment



- The product must be placed on a flat, level surface that is stable and secure.
- Never place this product or its parts on an unsteady or tilting workbench when servicing.
- Provide good ventilation at regular intervals if a service job must be done in a confined space for a long period of time.
- Avoid dusty locations and places exposed to oil or steam.
- Avoid working positions that may block the ventilation ports of the product.

### 4. Precautions for Handling Batteries



- Replace a rundown battery with the same type as specified in the manufacturer's parts manual.
- Before installing a new battery, make sure of the correct polarity of the installation or the battery could burst.
- Dispose of used batteries according to the local regulations. Never dispose of them at the user's premises or attempt to try to discharge one.



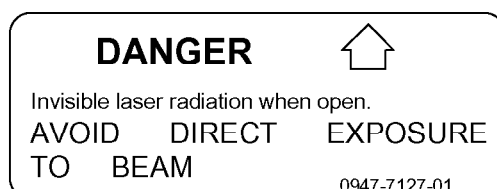
## 5. Precautions for the Laser Beam (Only for Products Employing a Laser)



- Removing the cover marked with the following caution label could lead to possible exposure to the laser beam, resulting in eye damage or blindness. Be sure to unplug the power cord before removing this cover.
- If removing this cover while the power is ON is unavoidable, be sure to wear protective laser goggles that meet specifications.
- Make sure that no one enters the room when the machine is in this condition.
- When handling the laser unit, observe the "Precautions for Handling Laser Equipment."



1167P001AA



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## Other Precautions

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- To reassemble the product, reverse the order of disassembly unless otherwise specified.
- While the product is energized, do not unplug or plug connectors into the circuit boards or harnesses.
- The magnet roller generates a strong magnetic field. Do not bring it near a watch, floppy disk, magnetic card, or CRT tube.
- An air gun and vacuum cleaner generates a strong electrostatic charge that can destroy the ATDC sensor and other sensors. Before cleaning a component with one of these devices, be sure to remove all the sensors. Otherwise, use a blower brush and cloth when cleaning parts.
- When handling circuit boards with MOS ICs, observe the "INSTRUCTIONS FOR HANDLING THE PWBs WITH MOS ICs" (applicable only to the products using MOS ICs).
- The PC Drum is a very delicate component. Observe the precautions given in "HANDLING OF THE PC DRUM" because mishandling may result in serious image problems.
- Note that replacement of a circuit board may call for readjustments or resetting of particular items, or software installation.
- After completing a service job, perform a safety check. Make sure that all parts, wiring and screws are returned to their original positions.
- Check the area surrounding the service site for any signs of damage, wear or need of repair.
- Do not pull out the toner hopper while the toner bottle is turning. This could result in a damaged hopper motor or locking mechanism.
- If the product is to be run with the front door open, make sure that the toner hopper is in the locked position.

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## Used Batteries Precautions

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### ALL Areas

#### CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

### Germany

#### VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen ähnlichen Typ.

Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

### France

#### ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.

Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

### Denmark

#### ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering Udskiftning må kun ske med batteri af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

### Norway

#### ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.

Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.

Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

### Sweden

#### VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.

Kassera använt batteri enligt fabrikantens instruktion.

### Finland

#### VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä Käytetty paristo valmistajan ohjeiden mukaisesti.

# PRECAUTIONS FOR SERVICE

When performing inspection and service procedures, observe the following precautions to prevent mishandling of the machine and its parts.

\* Depending on the model, some of the precautions given in the following do not apply.

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## Precautions Before Service

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- When the user is using a word processor or personal computer from a wall outlet of the same line, take necessary steps to prevent the circuit breaker from opening due to overloads.
- Never disturb the LAN by breaking or making a network connection, altering termination, installing or removing networking hardware or software, or shutting down networked devices without the knowledge and express permission of the network administrator or the shop supervisor.

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## How to Use this Book

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### 1. DIS/REASSEMBLY, ADJUSTMENT

- To reassemble the product, reverse the order of disassembly unless otherwise specified.

### 2. TROUBLESHOOTING

- If a component on a PWB or any other functional unit including a motor is defective, the text only instructs you to replace the whole PWB or functional unit and does not give troubleshooting procedures applicable within the defective unit.
- All troubleshooting procedures contained herein assume that there are no breaks in the harnesses and cords and all connectors are plugged into the right positions.
- The procedures preclude possible malfunctions due to noise and other external causes.

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## Precautions for Service

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- Check the area surrounding the service site for any signs of damage, wear or need of repair.
- Keep all disassembled parts in good order and keep tools under control so that none will be lost or damaged.
- After completing a service job, perform a safety check. Make sure that all parts, wiring and screws are returned to their original positions.
- Do not pull out the toner hopper while the toner bottle is turning. This could result in a damaged motor or locking mechanism.
- If the product is to be run with the front door open, make sure that the toner hopper is in the locked position.
- Do not use an air gun or vacuum cleaner for cleaning the ATDC Sensor and other sensors, as they can cause electrostatic destruction. Use a blower brush and cloth. If a unit containing these sensors is to be cleaned, first remove the sensors from the unit.

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## **Precautions for Dis/Reassembly**

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- Be sure to unplug the copier from the outlet before attempting to service the copier.
- The basic rule is not to operate the copier anytime during disassembly. If it is absolutely necessary to run the copier with its covers removed, use care not to allow your clothing to be caught in revolving parts such as the timing belt and gears.
- Before attempting to replace parts and unplug connectors, make sure that the power cord of the copier has been unplugged from the wall outlet.
- Be sure to use the Interlock Switch Actuating Jig whenever it is necessary to actuate the Interlock Switch with the covers left open or removed.
- Do not plug in or unplug print jacks on the PWB or connect or disconnect the PWB connectors while power is being supplied to the copier.
- Never use flammable sprays near the copier.
- A battery (lithium, nickel-cadmium, etc.) is used in this machine. Do not charge or short circuit it and make sure of the correct polarity at replacement.
- A used battery should be disposed of according to the local regulations and never be discarded casually or left unattended at the user's premises.
- When reassembling parts, make sure that the correct screws (size, type) and toothed washer are used in the correct places.
- If it becomes necessary to replace the thermal fuse or any other fuse mounted on a board, be sure to use one of the rating marked on the blown fuse. Always note the rating marked on the fuse, as the rating and mounting site or number used are subject to change without notice.

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## **Precautions for Circuit Inspection**

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- Never create a closed circuit across connector pins except those specified in the text and on the printed circuit.
- When creating a closed circuit and measuring a voltage across connector pins specified in the text, be sure to use the GND wire.

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## Handling of PWBs

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### 1. During Transportation/Storage:

- During transportation or when in storage, new P.W. Boards must not be indiscriminately removed from their protective conductive bags.
- Do not store or place P.W. Boards in a location exposed to direct sunlight and high temperature.
- When it becomes absolutely necessary to remove a Board from its conductive bag or case, always place it on its conductive mat in an area as free as possible from static electricity.
- Do not touch the pins of the ICs with your bare hands.
- Protect the PWBs from any external force so that they are not bent or damaged.

### 2. During Inspection/Replacement:

- Avoid checking the IC directly with a multimeter; use connectors on the Board.
- Never create a closed circuit across IC pins with a metal tool.
- Before unplugging connectors from the P.W. Boards, make sure that the power cord has been unplugged from the outlet.
- When removing a Board from its conductive bag or conductive case, do not touch the pins of the ICs or the printed pattern. Place it in position by holding only the edges of the Board.
- When touching the PWB, wear a wrist strap and connect its cord to a securely grounded place whenever possible. If you cannot wear a wrist strap, touch a metal part to discharge static electricity before touching the PWB.
- Note that replacement of a PWB may call for readjustments or resetting of particular items.

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## Handling of Other Parts

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- The magnet roller generates a strong magnetic field. Do not bring it near a watch, floppy disk, magnetic card, or CRT tube.

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## Handling of the PC Drum

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✱ Only for Products Not Employing an Imaging Cartridge.

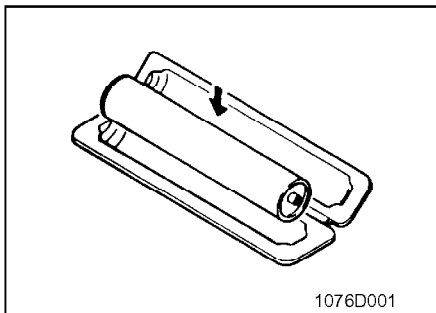
1. During Transportation/Storage:

- Use the specified carton whenever moving or storing the PC Drum.
- The storage temperature is in the range between  $-20^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ .
- In summer, avoid leaving the PC Drum in a car for a long time.

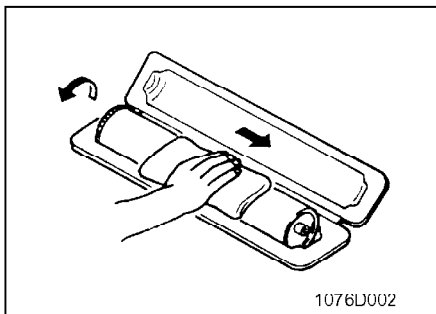
2. Handling:

- Ensure that the correct PC Drum is used.
- Whenever the PC Drum has been removed from the copier, store it in its carton or protect it with a Drum Cloth.
- The PC Drum exhibits greatest light fatigue after being exposed to strong light over an extended period of time. Never, therefore, expose it to direct sunlight.
- Use care not to contaminate the surface of the PC Drum with oil-base solvent, fingerprints, and other foreign matter.
- Do not scratch the surface of the PC Drum.
- Do not apply chemicals to the surface of the PC Drum.
- Do not attempt to wipe clean the surface of the PC Drum.

If, however, the surface is contaminated with fingerprints, clean it using the following procedure.

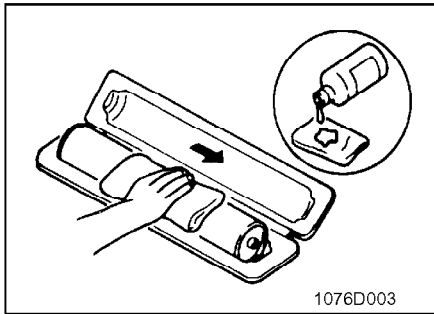


1. Place the PC Drum into one half of its carton.



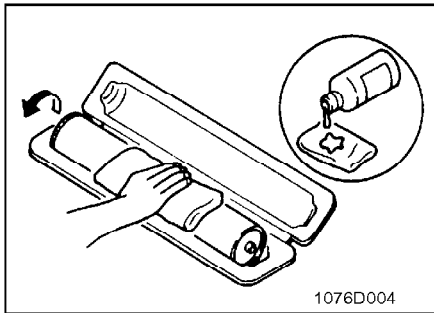
2. Gently wipe the residual toner off the surface of the PC Drum with a dry, Dust-Free Cotton Pad.
- A. Turn the PC Drum so that the area of its surface on which the line of toner left by the Cleaning Blade is present is facing straight up. Wipe the surface in one continuous movement from the rear edge of the PC Drum to the front edge and off the surface of the PC Drum.
- B. Turn the PC Drum slightly and wipe the newly exposed surface area with a CLEAN face of the Dust-Free Cotton Pad. Repeat this procedure until the entire surface of the PC Drum has been thoroughly cleaned.

✱ At this time, always use a CLEAN face of the dry Dust-Free Cotton Pad until no toner is evident on the face of the Pad after wiping.



3. Soak a small amount of either ethyl alcohol or isopropyl alcohol into a clean, unused Dust-Free Cotton Pad which has been folded over into quarters. Now, wipe the surface of the PC Drum in one continuous movement from its rear edge to its front edge and off its surface one to two times.

\* Never move the Pad back and forth.



4. Using the SAME face of the Pad, repeat the procedure explained in the latter half of step 3 until the entire surface of the PC Drum has been wiped. Always OVERLAP the areas when wiping. Two complete turns of the PC Drum would be appropriate for cleaning.

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### NOTES

- *Even when the PC Drum is only locally dirtied, wipe the entire surface.*
  - *Do not expose the PC Drum to direct sunlight. Clean it as quickly as possible even under interior illumination.*
  - *If dirt remains after cleaning, repeat the entire procedure from the beginning one more time.*
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## Handling of the Imaging Cartridge

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\* Only for Products Employing an Imaging Cartridge.

1. During Transportation/Storage:

- The storage temperature is in the range between  $-20^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ .
- In summer, avoid leaving the Imaging Cartridge in a car for a long time.

2. Handling:

- Store the Imaging Cartridge in a place that is not exposed to direct sunlight.

3. Precautionary Information on the PC Drum Inside the Imaging Cartridge:

- Use care not to contaminate the surface of the PC Drum with oil-base solvent, fingerprints, and other foreign matter.
- Do not scratch the surface of the PC Drum.
- Do not attempt to wipe clean the surface of the PC Drum.



# INDEX (GENERAL)

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GENERAL

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MECHANICAL/ELECTRICAL

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# INDEX (FIELD SERVICE)

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DIS/REASSEMBLY,  
ADJUSTMENT

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SWITCHES ON PWBs,  
TECH. REP. SETTINGS

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TROUBLESHOOTING

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# GENERAL

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# 1. SAFETY INFORMATION

## Laser Safety

This is a digital machine which prints by means of a laser. There is no possibility of danger from the laser, provided the machine is operated according to the instructions in this manual.

Since radiation emitted by the laser is completely confined within protective housing, the laser beam cannot escape from the machine during any phase of user operation.

This machine is certified as a Class 1 product. This means the machine does not produce hazardous laser radiation.

**CAUTION: The use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. Because of this, Minolta strongly recommends that you operate your copy machine only as described in this documentation.**

## Internal Laser Radiation

Maximum Average Radiation Power: 5.0 mW at laser aperture of the print head unit

Wavelength: 770-795 nm

This product employs a Class IIb Laser Diode that emits an invisible laser beam.

The Laser Diode and Scanning Polygon Mirror are incorporated in the print head unit.

The print head unit is NOT A FIELD SERVICE ITEM.

Therefore, the print head unit should not be opened under any circumstances.

## For United States

CDRH regulation

This copier is certified as a Class 1 Laser product under the Radiation Performance Standard according to the Food, Drug and Cosmetic Act of 1990. Compliance is mandatory for Laser products marketed in the United States and is reported to the Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration of the U.S. Department of Health and Human Services (DHHS). This means that the device does not produce hazardous laser radiation.

The label shown on page G-3 indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

**CAUTION:** Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

This is a semiconductor laser. The maximum power of the laser diode is 5 mW and the wavelength is 770-795 nm.

#### For Europe

**CAUTION:** Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

This is a semiconductor laser. The maximum power of the laser diode is 5 mW and the wavelength is 770-795 nm.

#### For Denmark

##### **ADVARSEL**

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion.  
Undgå udsættelse for stråling.

Klasse 1 laser produkt der opfylder IEC60825 sikkerheds kravene.

#### For Finland

LUOKAN 1 LASERLAITE

##### **VAROITUS**

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

##### **VARO**

Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

#### For Sweden

KLASS 1 LASER APPARAT

##### **VARNING**

Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

##### **VARNING**

Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

## For Norway

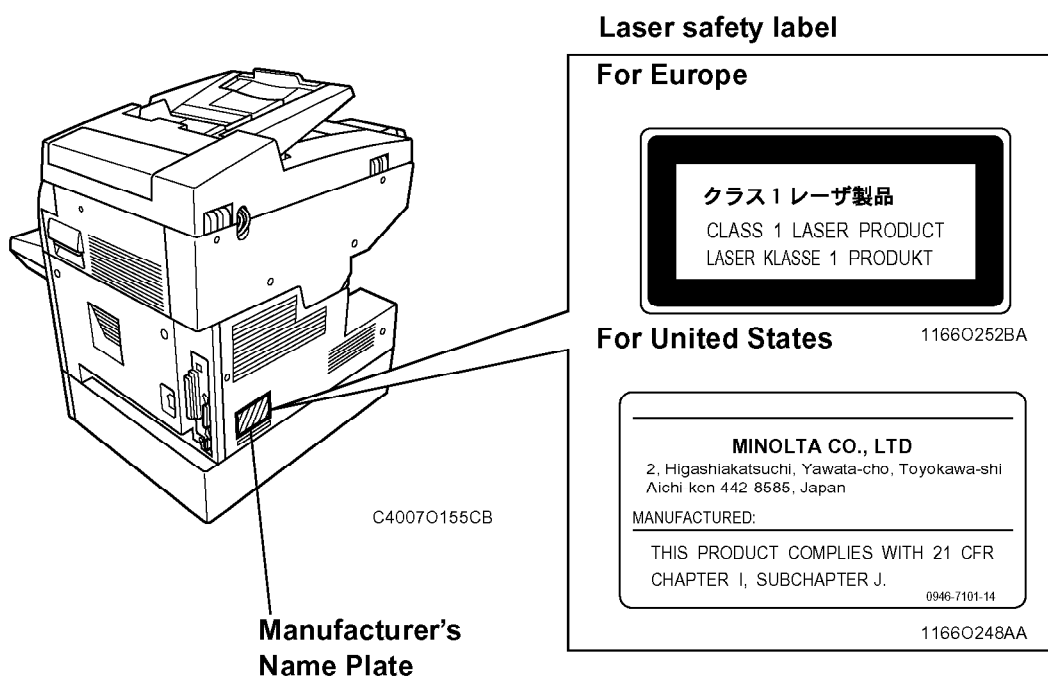
### ADVERSEL

Dersom apparatet brukes på annen måte enn spesifisert i denne bruksanvisning, kan brukeren utsettes for usynlig laserstråling, som overskrider grensen for laser klass 1.

Dette en halvleder laser. Maksimal effekt till laserdiode er 5 mW og bølgelengde er 770-795 nm.

## Laser Safety Label

A laser safety label is attached to the outside of the copy machine as shown below.



The Manufacturer's Name Plate is affixed at the position illustrated above.  
Please write down the Model Name and Serial No. of your copier here.

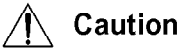
Model:

Serial No.:

# Label inside copy machine

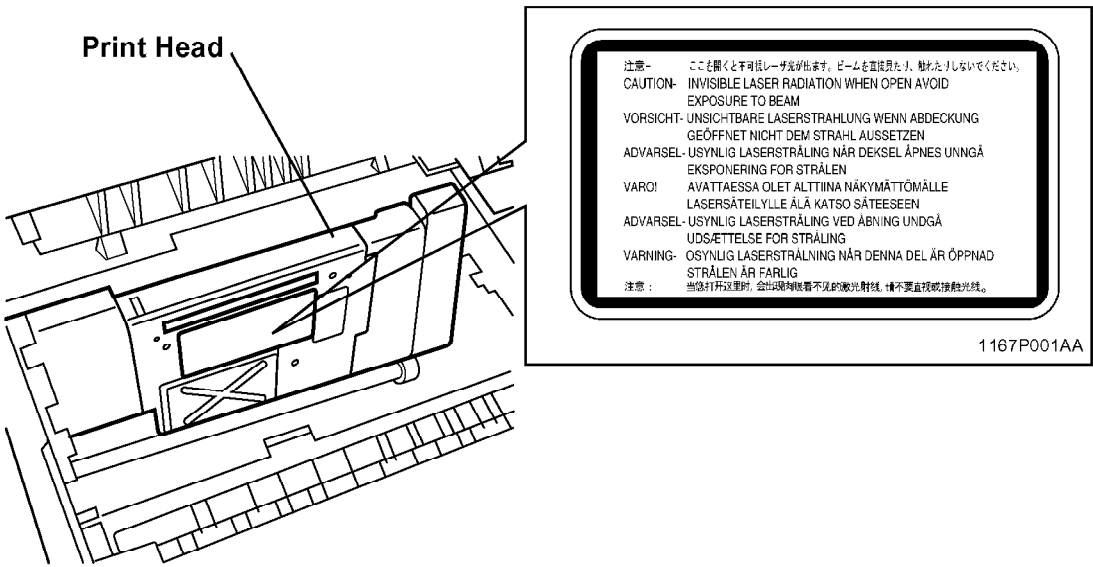
The following laser safety label will be attached inside the copy machine as shown below.

Please read the following for your own protection.



## Caution

Opening the cover indicated by the Caution label may expose you to harmful laser radiation which could cause damage or loss of eyesight. Do not open the cover when the power is on.



C4007O160CA



ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type  
recommended by the manufacturer.  
Dispose of used batteries according  
to the manufacturer's instructions.

Germany only

VORSICHT!

Explosionsgefahr bei unsachgemäßen austausch der  
batterie. Ersatz nur durch denselben oder einen vom hersteller  
empfohlenen ähnlichen typ. Entsorgung gebrauchter batterien  
nach angaben des herstellers.

Denmark only

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering  
Udskiftning må kun ske med batteri  
af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandøren.

Norway only

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.  
Benytt samme batteritype eller en tilsvarende  
type anbefalt av apparatfabrikanten.  
Brukte batterier kasseres i henhold til fabrikantens  
instruksjoner.

Sweden only

VARNING

Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent  
typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens  
instruktion.

Finland only

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suositteluun  
tyyppiin. Hävitä Käytetty paristo valmistajan ohjeiden  
mukaisesti.

ALL Areas

CAUTION

“Replace only with the same or equivalent type recommended by the manufacturer.  
Dispose of used IC Package according to the manufacturer's instructions.”

Germany only

VORSICHT!

⇒”Austausch nur durch denselben oder einen vom Hersteller empfohlenen, gleichwertigen  
typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

## 2. SPECIFICATIONS

TYPE	: Desktop
ORIGINAL SCANNING SYSTEM	: CCD Line Sensor
PHOTOCONDUCTOR	: Organic Photoconductor
COPYING SYSTEM	: Electrostatic Dry Powdered Image Transfer to Plain Paper
RESOLUTION	: 600 x 600dpi
PAPER FEEDING SYSTEM	: 2-Way system <div style="display: inline-block; vertical-align: middle; margin-left: 10px;">             └ Paper Tray              └ Manual Bypass Tray           </div>
EXPOSURE SYSTEM	: CCD Scanning
DEVELOPING SYSTEM	: Fine Micro-Toning System
CHARGING SYSTEM	: Rotating Charge Brush
IMAGE TRANSFER SYSTEM	: Image Transfer Roller
PAPER SEPARATING SYSTEM	: Paper Separator Finger
FUSING SYSTEM	: Heat Roller
PAPER DISCHARGING SYSTEM	: Charge Neutralizing Brush
MAXIMUM ORIGINAL SIZE	: Metric-216 x 356 mm; Inch-8-1/2 x 14

### COPY MEDIUM

		Paper Tray	Manual Bypass Tray
Medium	Plain Paper (60 to 90 g/m <sup>2</sup> , 16 to 24 lb)	○	○
	Translucent paper	—	○
	Transparencies	—	○
	Thick paper (90 to 163 g/m <sup>2</sup> , 24 to 43-1/4 lb)	—	○
	Recycled paper	○	○
Dimensions	Maximum (Width x Length)	210 x 297 mm 8-1/2 x 14	216 x 356 mm 8-1/2 x 14
	Minimum (Width x Length)	148 x 210 mm 5-1/2 x 8-1/2	128 x 182 mm 5 x 7-1/4

MULTIPLE COPIES	: 1 to 100
WARM-UP TIME	: 28 s or less with room temperature of 23 °C/73 °F and rated power voltage
FIRST COPY TIME	: 11.0 s or less (A4L / 8-1/2 x 11)
CONTINUOUS COPY SPEED (copies/min)	

Size \ Zoom Ratio	100%
A4L	15
8-1/2 x 11	15

## ZOOM RATIOS

Fixed	Mode \ Area	Metric	Inch
	Full Size	100 %	100 %
	Reduction	81 % 70 %	78 % 64 %
	Enlargement	115 % 141 %	129 % 154 %
Variable	50 % to 199 % (in 0.1 % increments)		

LENS : Through Lens

EXPOSURE LAMP : Cold-cathode discharge tube

FUSING TEMPERATURE : 210 °C / 410 °F

## POWER/CURRENT CONSUMPTION (copier only)

Voltage	Exposure Lamp (Rating)	Fusing Heater Lamp (Rating)	Max. Power Consumption
115 V	12 V 5.4 W	120 V 650 W	680 W
120 V			715 W
127 V			770 W
220 V		220/240 V 650 W	670 W
240 V			750 W

POWER REQUIREMENTS : 115 V, 120 V, 127 V, 220-240 V; 50/60 Hz

## ENVIRONMENTAL CONDITIONS

Temperature	10-30 °C (50-86 °F) with a fluctuation of up to 10 °C (18 °F) per hour.
Humidity	15-85 % (Relative Humidity) with a fluctuation of up to 20 % per hour.
Ambient Illumination	3,000 lx or less
Levelness	1° or less

COPIER DIMENSIONS : Width.....562 mm (22-1/4)

Depth.....530 mm (20-3/4)

Height.....442 mm (17-1/2)

COPIER WEIGHT

: 28.1 kg (62 lb)

## 3. PRECAUTIONS FOR INSTALLATION

### 3-1. Installation Site

To ensure safety and utmost performance of the copier, the copier should NOT be used in a place:

- Where it will be subjected to extremely high or low temperature or humidity.
- Where it will be subjected to sudden fluctuations in either temperature or humidity.
- Which is exposed to direct sunlight.
- Which is in the direct air stream of an air conditioner, heater, or ventilator.
- Which has poor ventilation or is dusty.
- Which does not have a stable, level floor or where it will receive undue vibration.
- Which is near any kind of heating device.
- Which is near volatile flammables (thinner, gasoline, etc.).
- Where it may be splashed with water.
- Which puts the operator in the direct stream of exhaust from the copier.
- Where ammonia gas might be generated.

### 3-2. Power Source

- If any other electrical equipment is sourced from the same power outlet, make sure that the capacity of the outlet is not exceeded.
- Use a power source with little voltage fluctuation.
- Never connect by means of a multiple socket any other appliances or machines to the outlet being used for the copier.
- Ensure that the copier does not ride on the power cord or communication cable of other electrical equipment, and that it does not become wedged into or underneath the mechanism.
- Make the following checks at frequent intervals:
  - \* Is the power plug abnormally hot?
  - \* Are there any cracks or scrapes in the cord?
  - \* Has the power plug been inserted fully into the outlet?
  - \* Does something, including the copier itself, ride on the power cord?

---

*Use an outlet with a capacity of 115/120/127 V or 220-240 V.*

---

### 3-3. Grounding

- Always ground the copier to prevent receiving electrical shocks in the case of electrical leakage.
- Connect the ground wire to the ground terminal of the outlet or a grounding contact which complies with the local electrical standards.
- Never connect the ground wire to a gas pipe, the ground wire for a telephone, lightning arrester, or a water pipe for fear of fire and electrical shock.

## **4. PRECAUTIONS FOR USE**

### **4-1. To ensure that the copier is used in an optimum condition**

- Never place a heavy object on the copier or subject the copier to shocks.
- Insert the power plug all the way into the outlet.
- Do not attempt to remove any panel or cover which is secured while the copier is making copies.
- Do not turn OFF the copier while it is making copies.
- Provide good ventilation when making a large number of copies continuously.
- Never use flammable sprays near the copier.
- If the copier becomes inordinately hot or produces abnormal noise, turn it OFF and unplug it.
- Do not turn ON the power switch at the same time when you plug the power cord into the outlet.
- When unplugging the power cord, do not pull on the cord; hold the plug and pull it out.
- Do not bring any magnetized object near the copier.
- Do not place a vase or vessel containing water on the copier.
- Be sure to turn OFF the power switch at the end of the workday or upon power failure.
- Use care not to drop paper clips, staples, or other small pieces of metal into the copier.

### **4-2. Operating Environment**

The operating environmental requirements of the copier are as follows.

- Temperature: 10 to 30 °C (50 to 86 °F)
- Humidity: 15 to 85 %
- Rate of temperature change: 10 °C (18 °F)/h
- Rate of humidity change: 10 %/h

### **4-3. Power Requirements**

The power source voltage requirements are as follows.

- Voltage fluctuation: AC115/120/127/220-240  
    ±10 % (copying performance assured)  
    +10 % (paper feeding performance assured)  
    -15 %
- Frequency fluctuation: 50/60 Hz ±0.3 %

### **4-4. Note**

- It is prohibited to copy paper and hard currencies, government securities, and municipal bonds (even when they are stamped as "Sample").
- For fear of infringement of copyright, it is also prohibited to copy copyrighted works, including books, music, works of art, maps, drawings, motion pictures, and photos except when the copy is to be used only personally.

## 5. HANDLING OF CONSUMABLES

Before using any consumables, always read the label on its container carefully.

- Paper can be easily damaged by dampness. To prevent absorption of moisture, store paper, which has been removed from its wrapper but not loaded in the drawer, in a sealed plastic bag in a cool, dark place.
- Keep consumables out of the reach of children.
- Do not touch the PC Drum with bare hands.
- The same sized paper is of two kinds, short grain and long grain. Short grain paper should only be fed through the copier crosswise, long grain paper should only be fed lengthwise.
- If your hands become soiled with toner, wash them with soap and water.
- Do not throw away any used consumables (PC Drum, starter, toner, etc.). They are to be collected.
- Do not burn, bury in the ground, or throw into the water any consumables (PC Drum, starter, toner, etc.).
- Do not store consumables in a place which:
  - \* Is hot and humid.
  - \* Is subject to direct sunlight.
  - \* Has an open flame nearby.

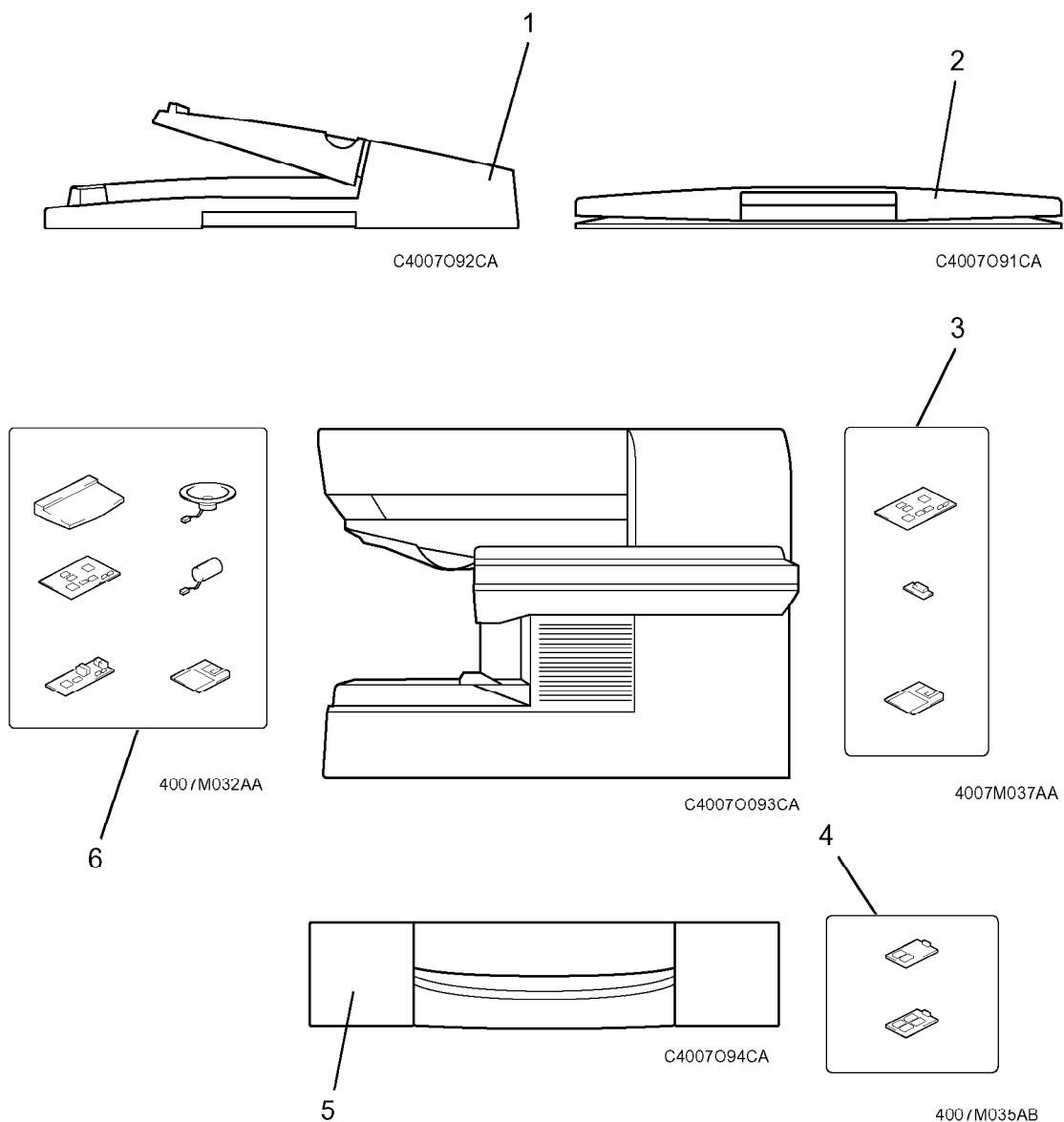
## **6. OTHER PRECAUTIONS**

Use the following precautions when performing service jobs for a copier that uses a laser.

- When a service job needs to be performed in the laser beam path, such as when working around the printerhead or PC Drum, be sure first to unplug the power cord of the copier from the outlet.
- If the job requires that the power cord be left plugged in, observe the following precautions.
  1. Take off your watch, ring and any other reflective object and wear laser protective goggles.
  2. Keep users away from the job site.
  3. Do not bring a highly reflective tool into the laser beam path during the service job.



## 7. SYSTEM OPTIONS



1. Automatic Document Feeder AF-8
2. Original Cover (Except Europe)
3. Printer Controller Pi1501

4. Memory for Copier (16MB/32MB)
5. Paper Feed Unit PF-116
6. Fax Unit for Di151

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# MECHANICAL/ ELECTRICAL

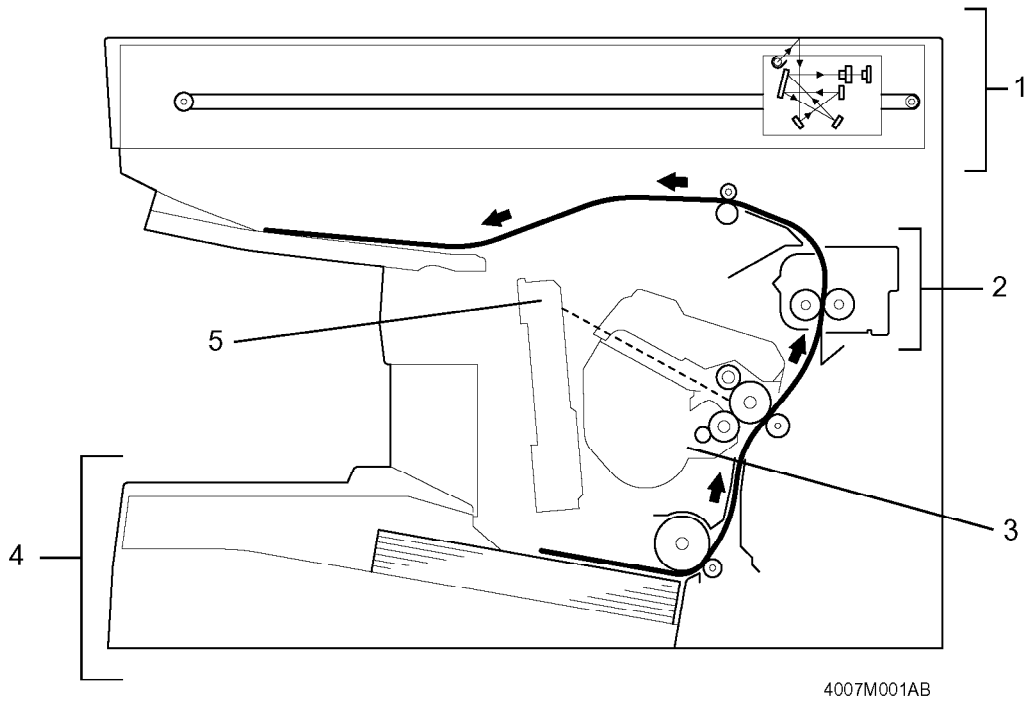
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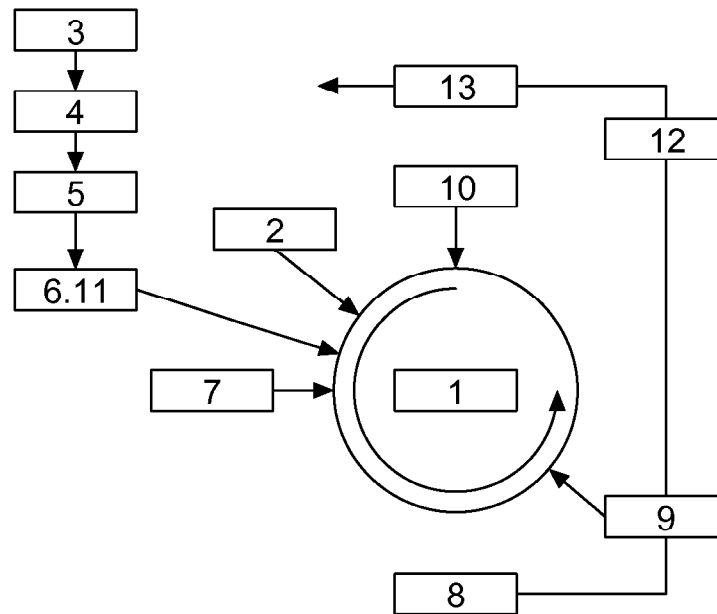
## 1. CROSS SECTIONAL VIEW



- 1. IR Section
- 2. Fusing Unit
- 3. I/C

- 4. Paper Tray
- 5. PH Section

## 2. COPY PROCESS



4007M002AB

1. PC Drum
  - Used as the medium on which a visible developed image of the original is formed.
2. Drum Charging
  - A uniform negative DC charge is deposited across the entire surface of the PC Drum.
3. Photoelectric Conversion
  - CCD converts the image data represented by light reflected off the original to a corresponding electrical signal which, in turn, is output to IR image-processing section.
4. IR Image-Processing
  - The electrical signal is converted to an 8-bit digital image signal (A/D conversion) which, in turn, goes through appropriate correction before being output to the PH Section.
5. PH Image Processing
  - After going through corrections, the digital image signal is converted to a corresponding electrical signal (D/A conversion) that controls the intensity of the light from the laser diode.
6. Laser Exposure
  - The laser beam strikes the surface of the PC Drum, forming an electrostatic latent image.
7. Developing
  - Toner adheres to the electrostatic latent image on the PC Drum surface, creating a visible image.
  - A DC (-) bias voltage is applied to the Sleeve Roller to charge toner.
8. Paper Feeding
  - Paper is fed from either the Paper Tray or Manual Bypass Tray.
9. Image Transfer
  - A DC (+) bias voltage is applied to the Image Transfer Roller to transfer the visible toner image formed on the PC Drum surface to the paper.
10. Cleaning
  - Residual toner on the surface of the PC Drum is scraped off.

11. PC Drum Erase

- A laser beam strikes the surface of the PC Drum to remove any residual charge from it.

12. Fusing

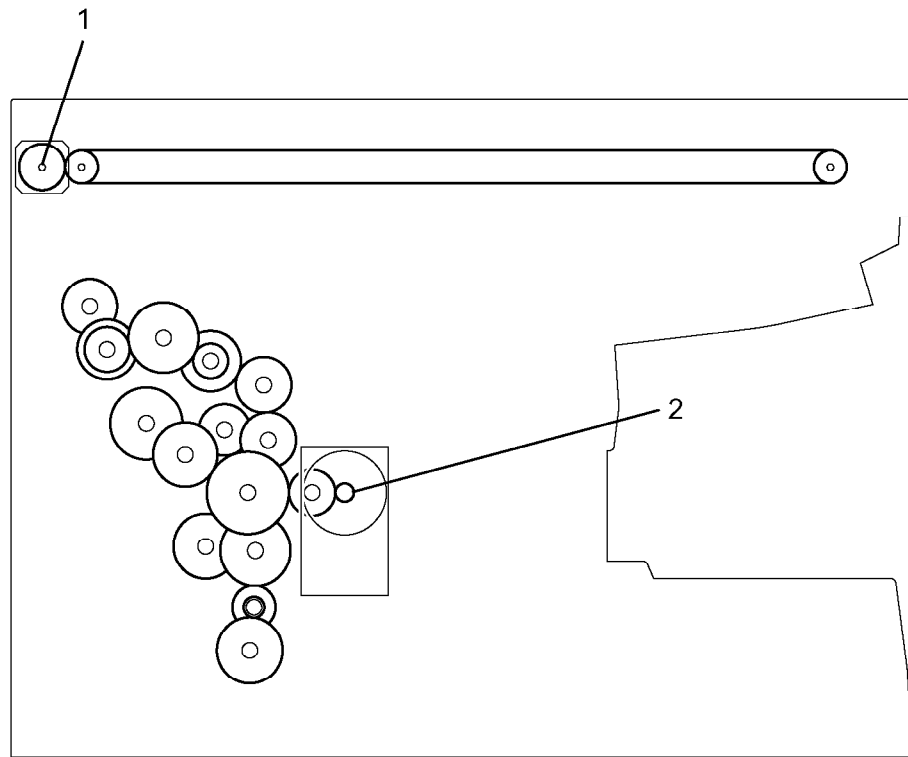
- The developed image is permanently fused to the paper by a combination of heat and pressure applied by the Fusing Roller and Fusing Backup Roller.

13. Exit

- The paper is fed out onto the Exit Tray.



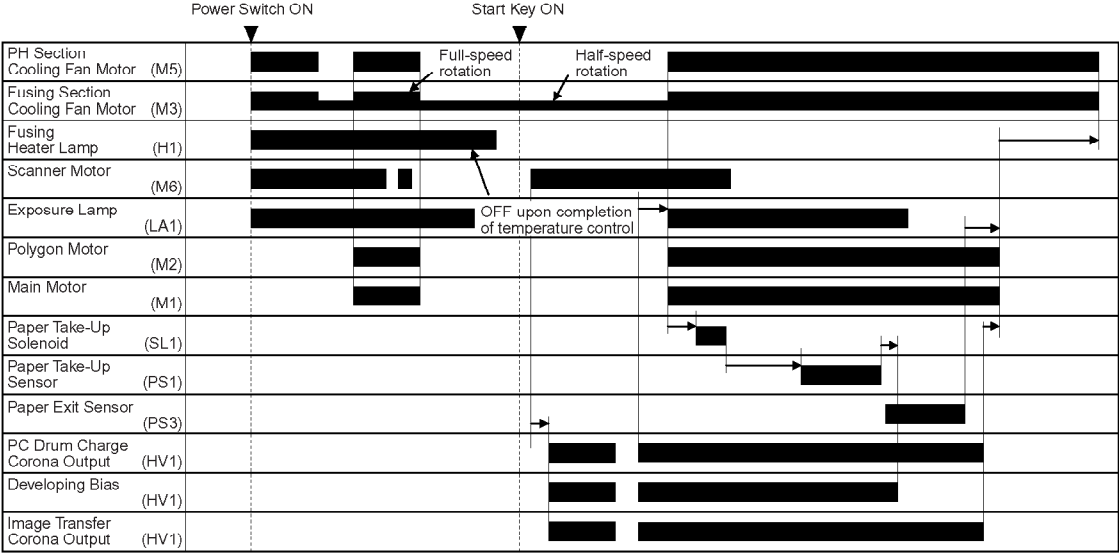
### 3. DRIVE SYSTEM



4007M003AA

1. Scanner Motor M6
2. Main Motor M1

4. SEQUENTIAL EXPLANATION

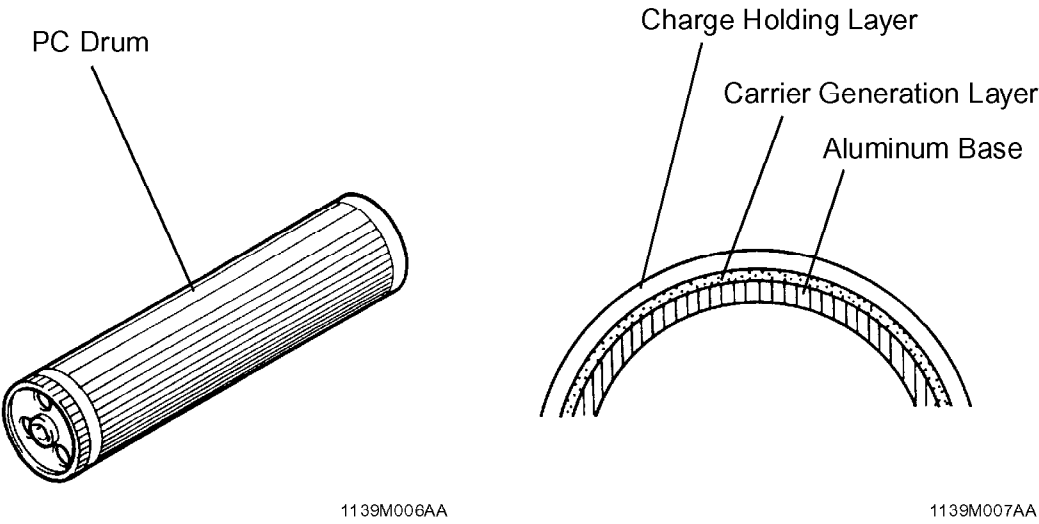


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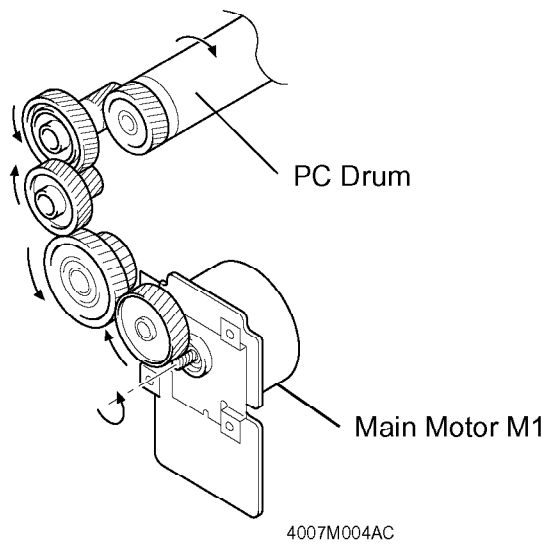
# 5. PC DRUM SECTION

The PC Drum consists of layers of semiconductive materials placed on an aluminum alloy base, on which an electrostatic latent image is formed.



## 5-1. PC Drum Drive Mechanism

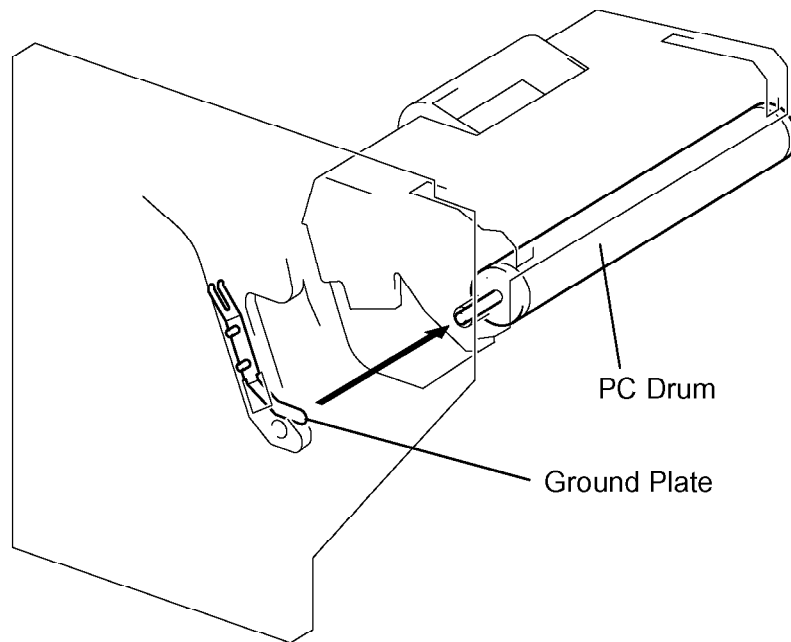
The PC Drum is rotated by drive from a motor.



	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
M1	PWB-A PJ6A-3	L	H	8-F

## 5-2. Grounding of the PC Drum

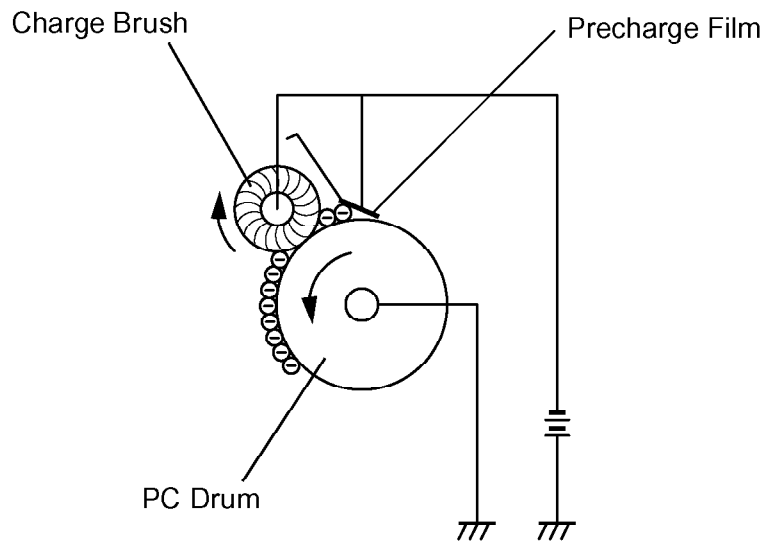
The potential on the surface of the PC Drum exposed to the light is grounded to the frame.



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## 6. PC DRUM CHARGING SECTION

- Both the Rotating Charge Brush and Precharge Film are used to negatively charge the surface of the PC Drum.
- The Rotating Charge Brush applies charge directly to the PC Drum, which ensures that the PC Drum is charged evenly and stably with a low voltage. It also helps reduce dramatically the amount of ozone produced in the copier as compared with corona discharge systems.
- Prior to charging by the Rotating Charge Brush, the Precharge Film will perform preliminary charging of both ends of the PC Drum to enhance drum charging efficiency.

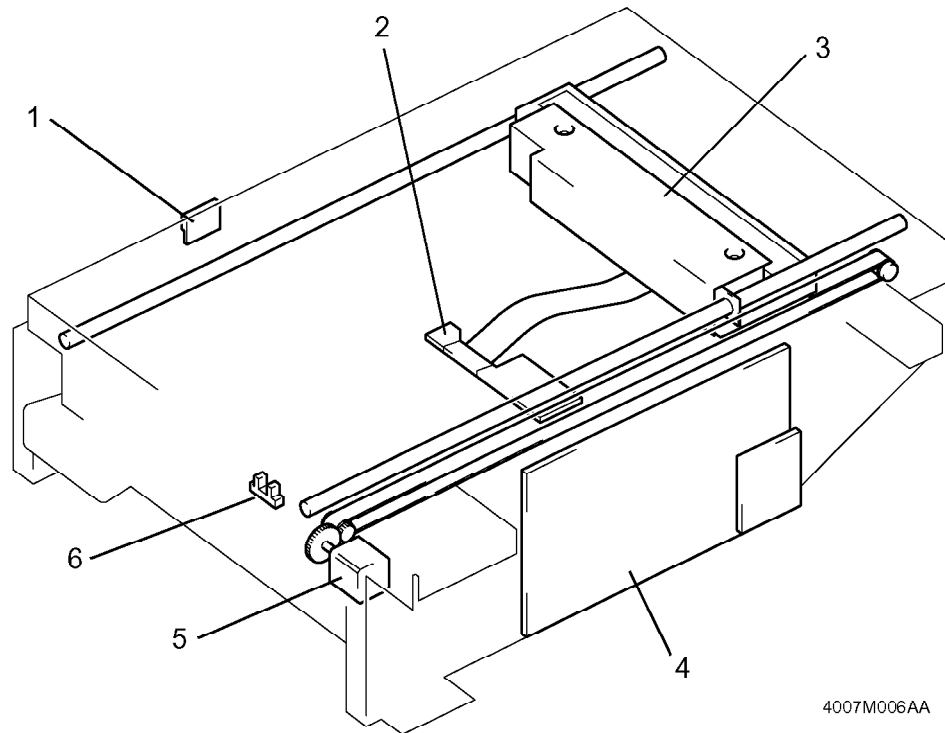


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	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
HV PC Drum Charger	PWB-A PJ4A-8	L	H	1-F

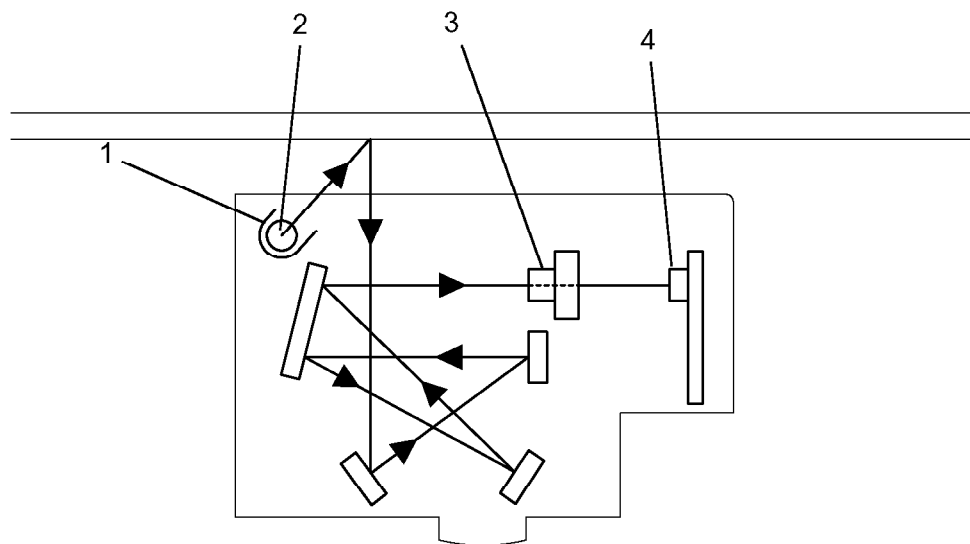
## 7. IMAGE READING SECTION

CCD converts the light reflected off the original to a corresponding electrical signal which is, in turn, applied to the PH image processing section.



- |                                  |                                     |
|----------------------------------|-------------------------------------|
| 1. ADF Set Switch S3             | 4. Control Board PWB-I              |
| 2. Scanner Interface Board PWB-S | 5. Scanner Motor M6                 |
| 3. Scanner                       | 6. Scanner Home Position Sensor PS5 |

## 7-1. Exposure Components Section



4007M007AB

- |                      |         |
|----------------------|---------|
| 1. Reflector         | 3. Lens |
| 2. Exposure Lamp LA1 | 4. CCD  |

## 7-2. Exposure Lamp Control

- The Exposure Lamp is turned ON or OFF by the Exposure Lamp Remote signal output from the Control Board.
- It is turned ON or OFF at different timings between when the Power Switch is turned ON and when the Start Key is pressed.Details;

<When Power Switch is turned ON>

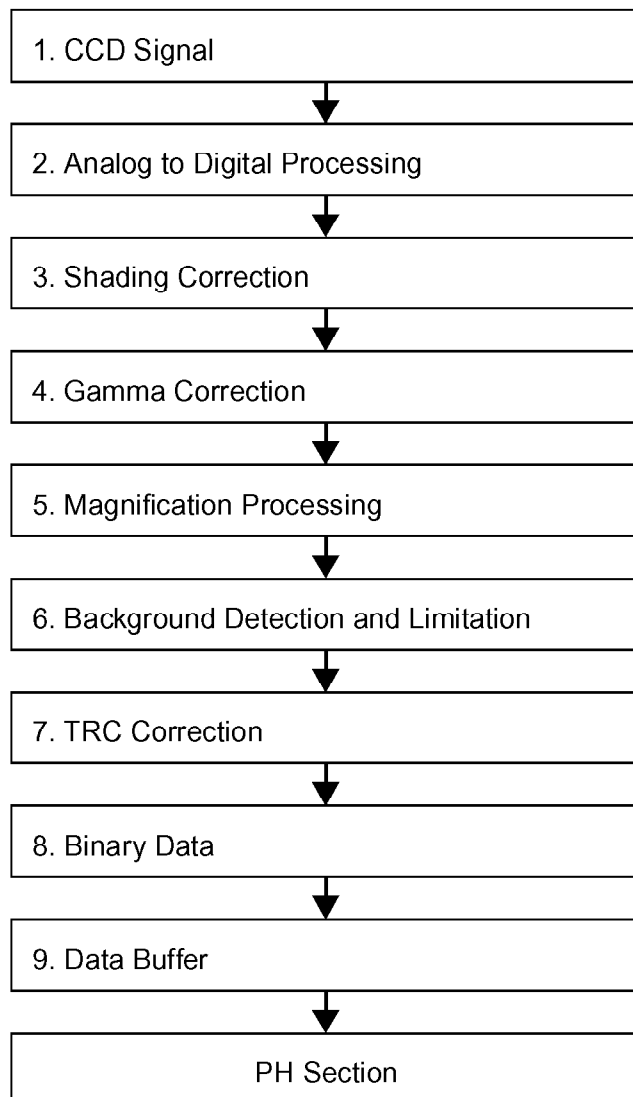
1. The Exposure Lamp turns ON and the Scanner starts moving.
2. The Exposure Lamp turns ON and OFF three times to set the MAX and MIN output voltages for the CCD.
3. The Scanner stops at the shading position underneath the scale.
4. The Exposure Lamp power checking.
5. The Scanner scans the shading sheet before returning to its home position.  
At this time, it scans the white pattern and black pattern to determine the max. and min. output voltages for the CCD Sensor.
6. After a given period of time, the Exposure Lamp goes out. Then, the Scanner moves to, and stops at, the shading position.  
The time it takes the Exposure Lamp to turn OFF is determined by the setting of C8 of Tech. Rep. Choice, the default setting being 30 sec.

<When Start key is pressed>

1. The Scanner starts moving at the shading position.
2. The Exposure Lamp turns ON and OFF several times.
3. The Exposure Lamp power checking.
4. The Scanner moves to the home position and starts a scan motion to read the original.
5. The Scanner stops at its home position.

	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
LA1	PWB-I JP8I-1	L	H	6-B

### 7-3. Image Processing Process

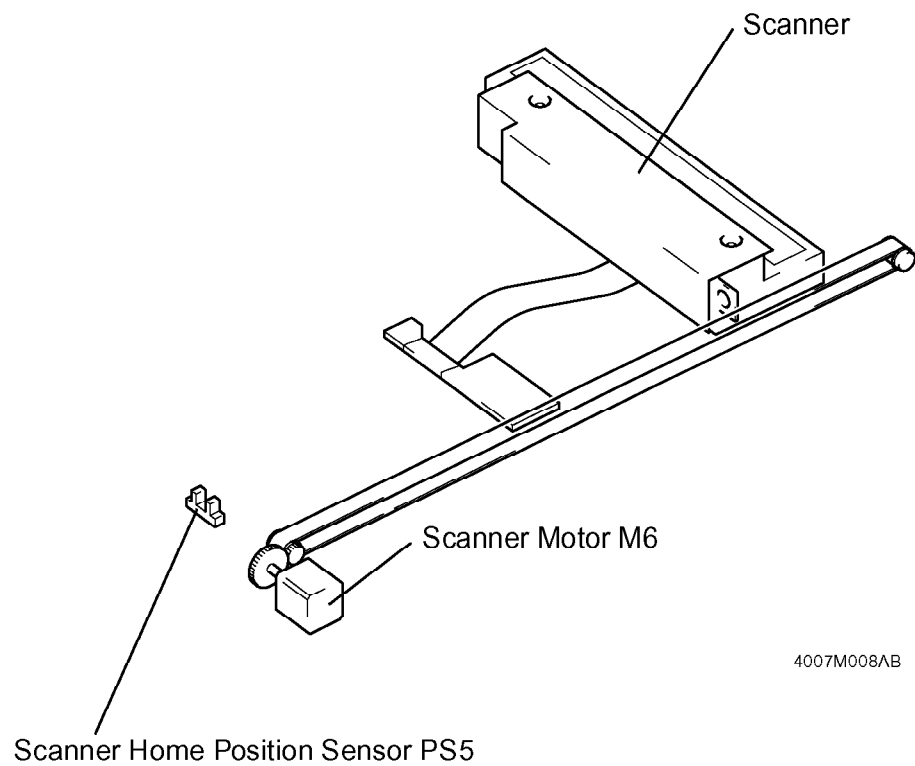


1. CCD Signal
  - The Exposure Lamp illuminates the original and the light reflected off the original passes through the mirrors and lens to reach the CCD Sensor which, in turn, converts the optical data to a corresponding analog electrical signal.
2. Analog to Digital Processing
  - This block with gain adjustment, converts the result to 8-bit digital image signals.
3. Shading Correction
  - Corrects errors in the image data introduced by factors such as variations in sensitivity among CCD Sensor pixels, uneven Exposure Lamp light distribution, and uneven lens shading.
4. Gamma Correction
  - Adjusts data so that the scan image's gradation characteristics will be proportional to gradation characteristics of the original.
5. Magnification Processing
  - Processes the image data as necessary according to the zoom setting (Enlarge/Reduce) made on the control panel.
6. Background Detecting and Limitation
  - Detects the background of original and adjusts the threshold of image processing.
7. TRC Correction
  - Corrects the image data to match it with toner characteristics on the engine side.
  - TRC: Toner Reproduce Curve
8. Binary Data
  - Converts the 8-bit image gray data to corresponding binary data.
9. Data Buffer
  - Transmits binary data to the PH.



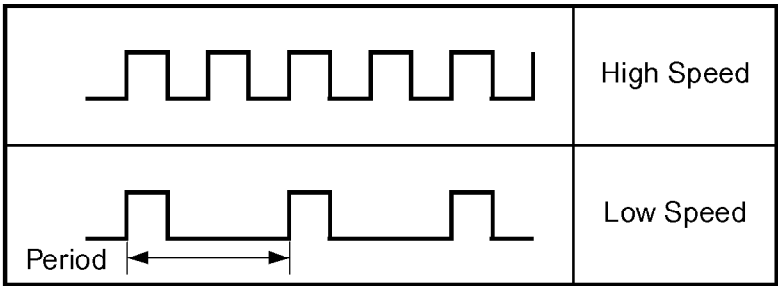
#### 7-4. Scanner Movement Mechanism

- The Scanner is driven by the Scanner Motor.
- The Scanner is detected at its home position by the Scanner Home Position Sensor.



**7-5. Scanner Motor Drive Control**

- The speed at which the Scanner is moved is controlled by varying the period of the motor drive pulse that is timed with the reference clock.



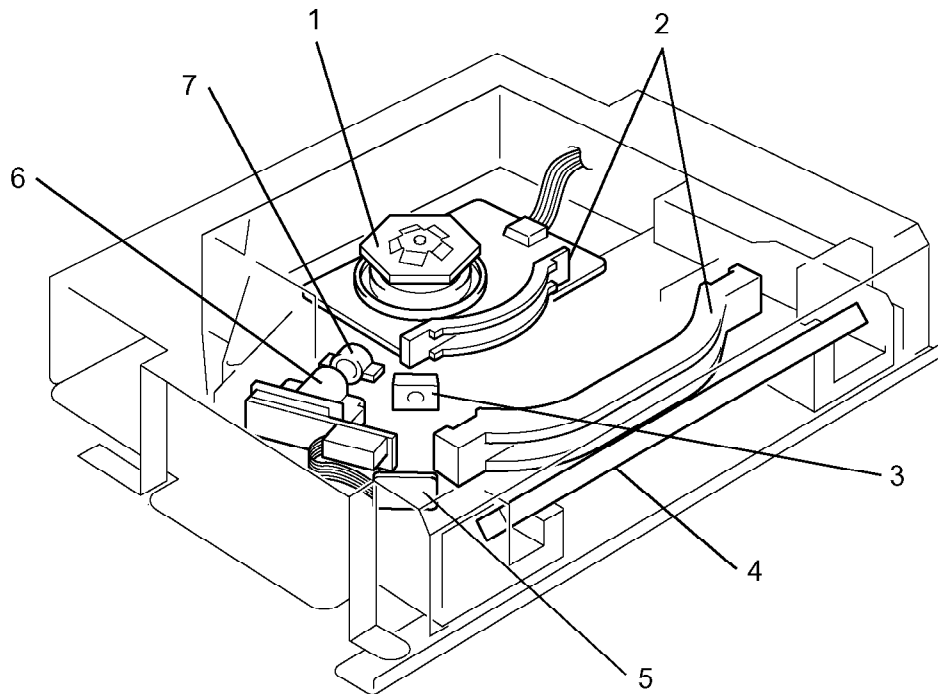
- The distance over which the Scanner travels is controlled by the number of motor drive pulses that corresponds to each paper size and zoom ratio.

	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
M6	PWB-I JP9I-1~4	Pulse Output		4-D



## 8. PH SECTION

Image data sent from the IR section is corrected and, based on the corrected data, a laser light is projected onto the surface of the PC Drum to form a corresponding latent image.



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- |                  |                     |
|------------------|---------------------|
| 1. Polygon Motor | 5. SOS Sensor Board |
| 2. Lenses        | 6. LD Board         |
| 3. SOS Lens      | 7. Cylindrical Lens |
| 4. Return Mirror |                     |

## 8-1. Laser Exposure Process

The Start key is pressed.



The laser is forced ON.



The laser beam is corrected and the laser output is adjusted to an optimum level.



When the laser beam strikes the SOS Sensor, an SOS signal is generated.



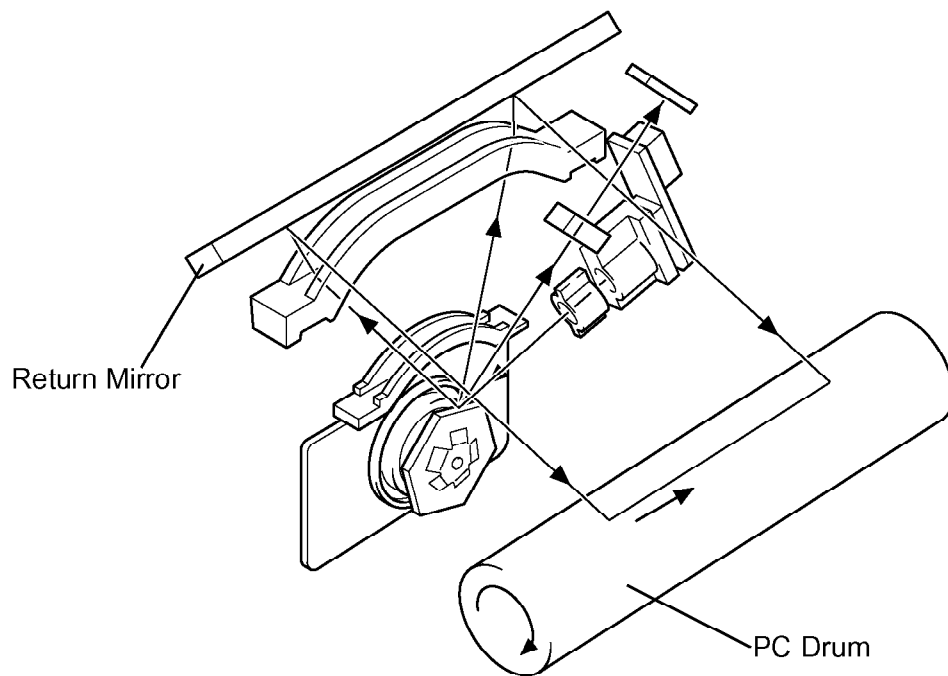
The SOS signal, together with the HSYNC signal (the image start position in the CD direction) and TOD signal (the image start position in the FD direction), determines the laser emission timing.



A laser light is emitted in accordance with the VIDEO signal (image data).



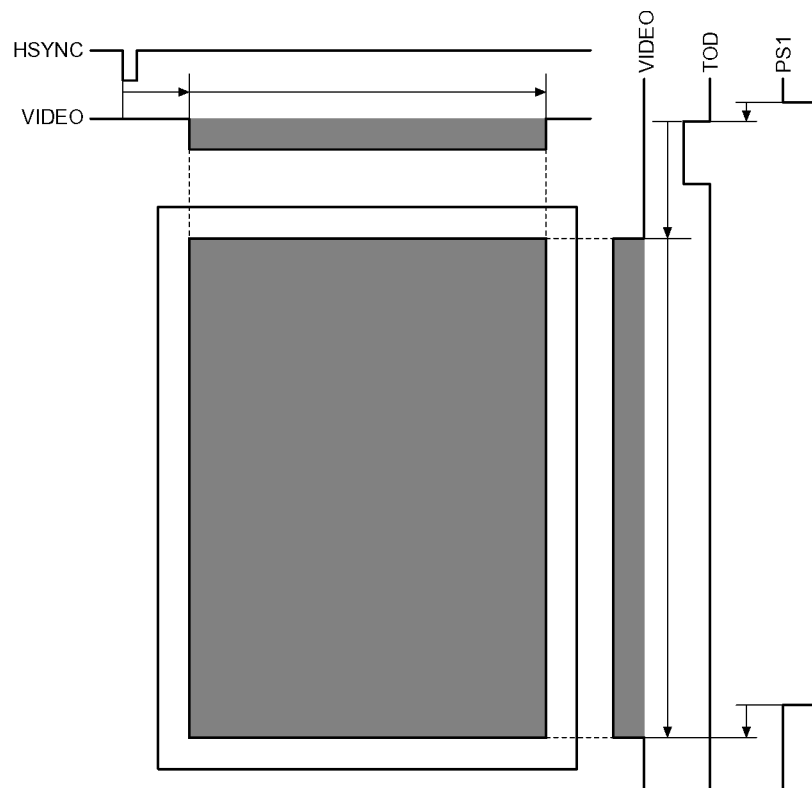
The laser light strikes the surface of the PC Drum to form an electrostatic latent image.



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## 8-2. Laser Emission Area (HIA and VIA Signals)

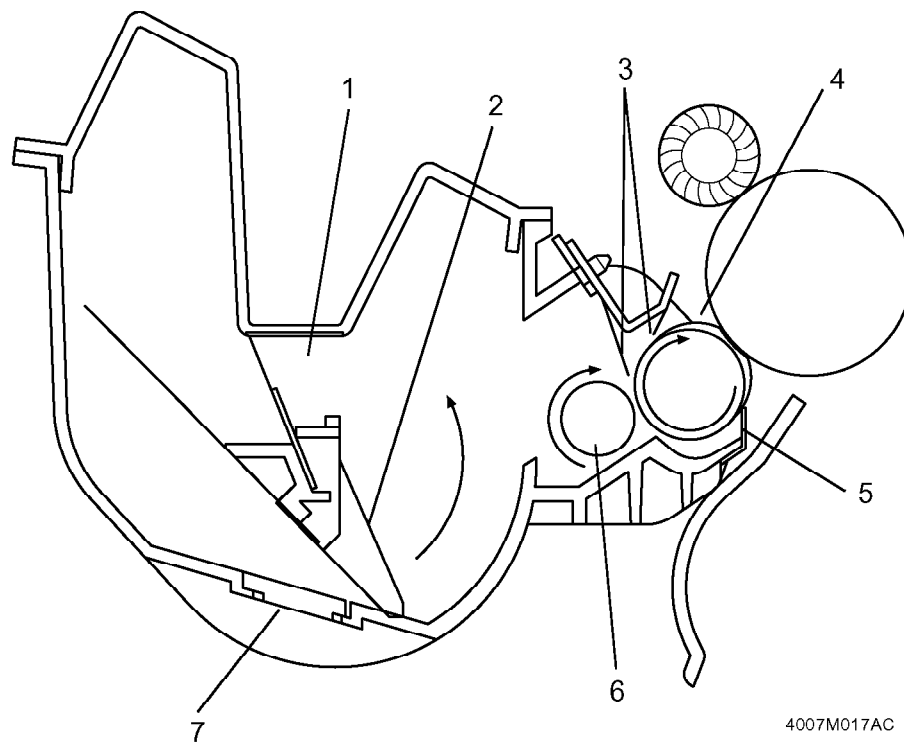
- The laser radiation area is controlled in the CD and FD directions, respectively.
- The HSYNC signal (IR) determines the image start position in the CD direction.
- The Paper Take-Up Sensor and the TOD signal (engine) determine the image start position in the FD direction.
- The HSYNC signal and TOD signal are timed by the SOS signal.
- The image data (VIDEO signal) is output after the image start positions in the CD and FD directions have been determined. The Paper Take-Up Sensor controls the image end position in the FD direction.



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## 9. DEVELOPING UNIT SECTION

Toner is applied to the electrostatic latent image formed on the surface of the PC Drum, resulting in a visible, developed toner image.

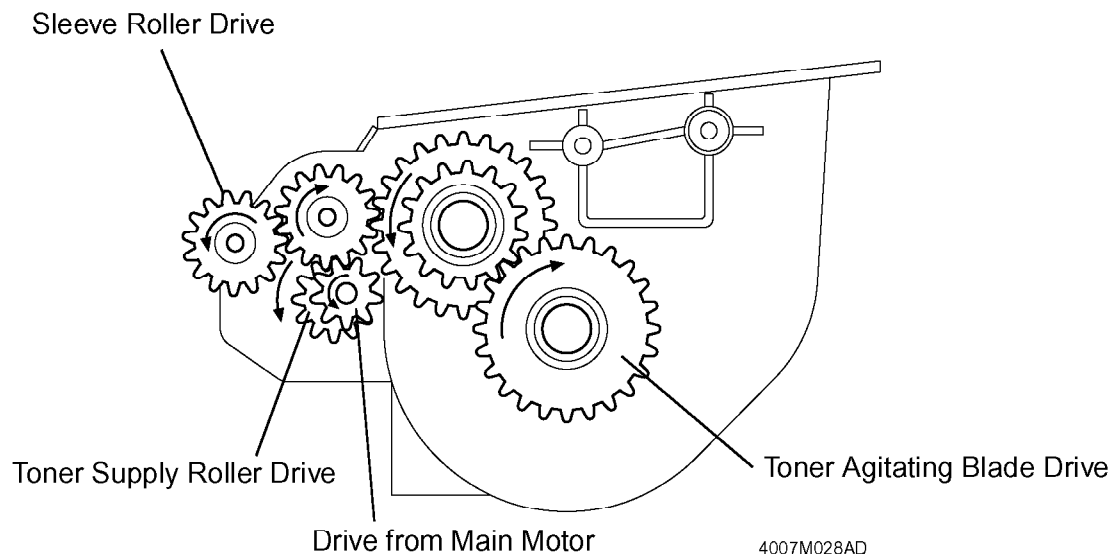


1. Reflecting Mirror
2. Toner Agitating Blade
3. Toner Regulator Blade
4. Sleeve Roller

5. Charge Neutralizing Sheet
6. Toner Supply Roller
7. LED Window

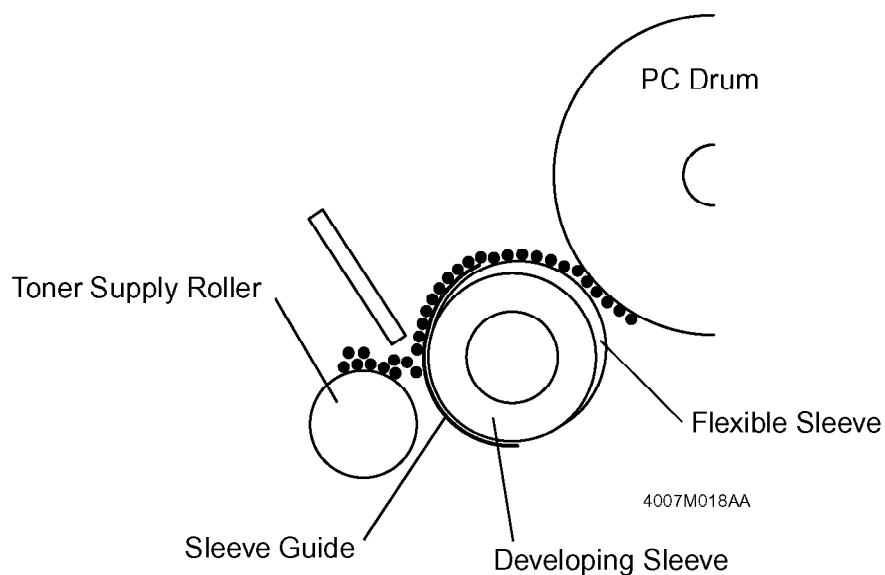
## 9-1. Developing Unit Drive Mechanism

The rollers and screws are driven through a gear train from the motor.



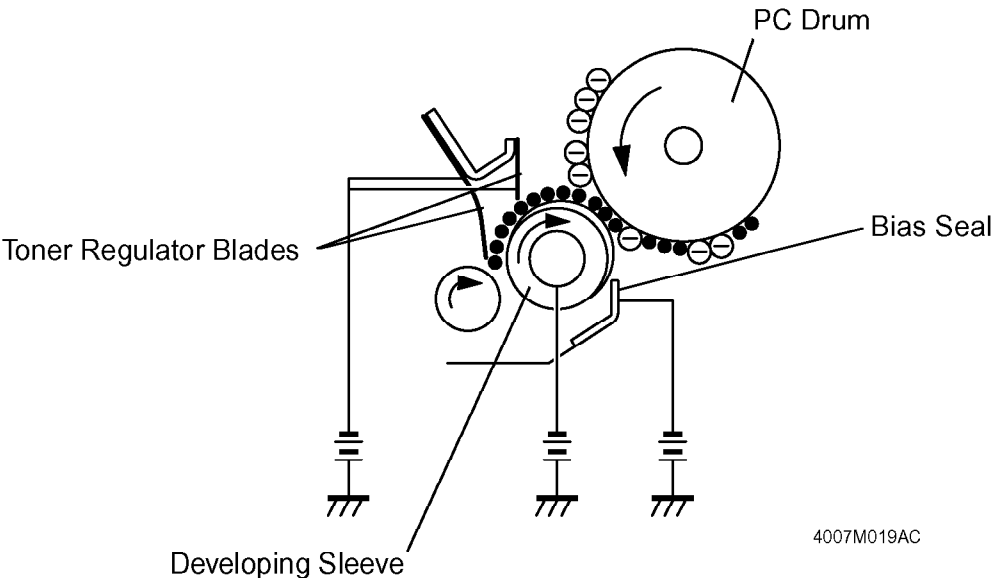
## 9-2. Sleeve Roller

- The Sleeve Roller consists of a Developing Sleeve and Flexible Sleeve.
- The Flexible Sleeve has a diameter greater than the Developing Sleeve does. The Sleeve Guide presses the Flexible Sleeve against the Developing Sleeve to form a slack in it.
- The slack in the Flexible Sleeve is brought into contact with the surface of the PC Drum to let an even amount of toner stick to the PC Drum.



**9-3.     Developing Bias**

- A bias voltage is applied to the Developing Sleeve and Toner Regulator Blades to charge the toner.
- A bias voltage is also applied to the Bias Seal to prevent toner left on the Sleeve Roller after development from falling down over the areas inside the copier.
- The amount of toner sticking to the surface of the PC Drum varies according to the potential difference between the voltage on the surface of the PC Drum ( $V_i$ ) and that on the surface of the Sleeve Roller ( $V_b$ ).
- The greater the potential difference, the more the amount of toner.

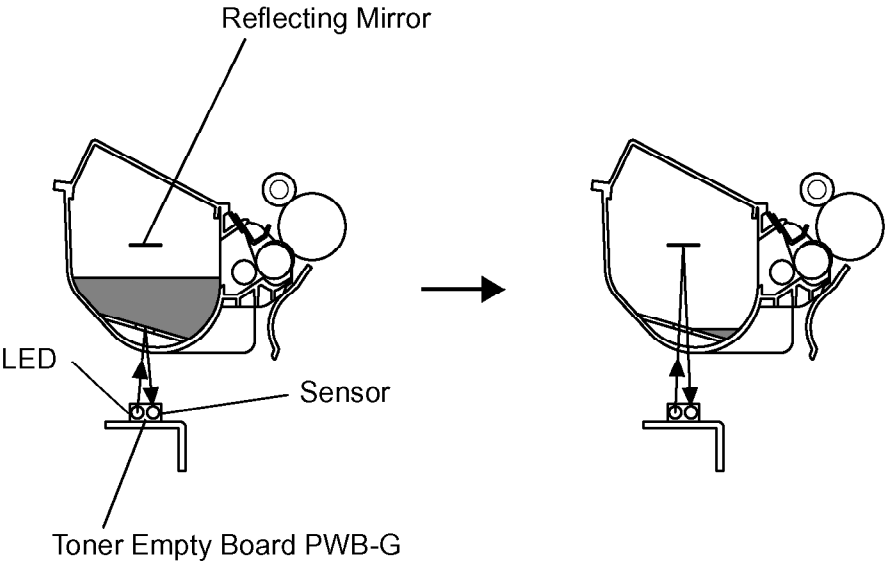


	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
Developing Bias	PWB-A PJ4A-7	L	H	1-F
Toner Regulator Blades				
Bias Seal				



9-4. Toner Empty Detection

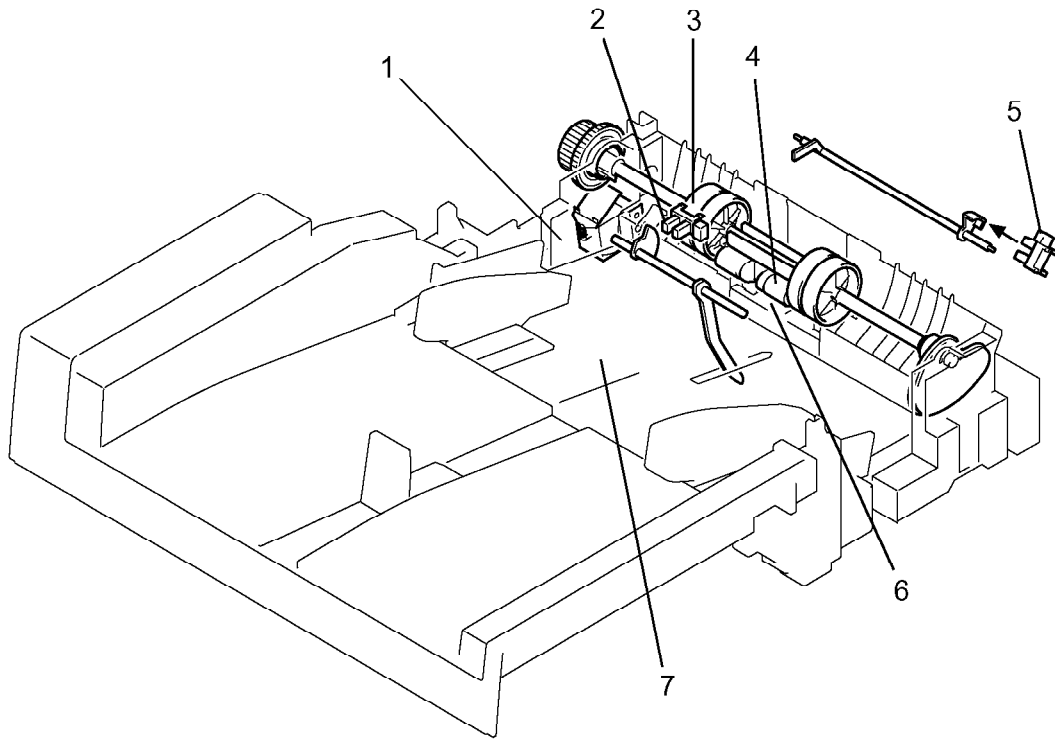
- An LED and sensor are used to detect a toner-empty condition.
1. Light from the LED strikes the inside of the I/C through the LED Window.
  2. The Toner Agitating Blade turns to scrape toner off the surface of the LED Window.
  3. The light emitted by the LED is reflected by the Reflecting Mirror to reach the sensor.
  4. The amount of toner in the I/C changes the number of times (or the period of time) through which the light from the LED reaches the sensor.
  5. The light that reaches the sensor is translated to a corresponding voltage value.
  6. If the sensor detects a voltage of 2.0 V or less twice while the Toner Agitating Blade turns five revolutions, the copier considers that it is a toner-near-empty condition.
  7. If the sensor detects a voltage of 2.0 V or less three consecutive times while the Toner Agitating Blade turns five revolutions, or if it continues detecting a voltage of 2.0 V or less even after one revolution of the Toner Agitating Blade, the copier considers that it is a toner-empty condition.



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	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
PWB-G	PWB-A PJ10A-6	Analog Input		2-D

## 10. PAPER TAKE-UP/FEEDING SECTION

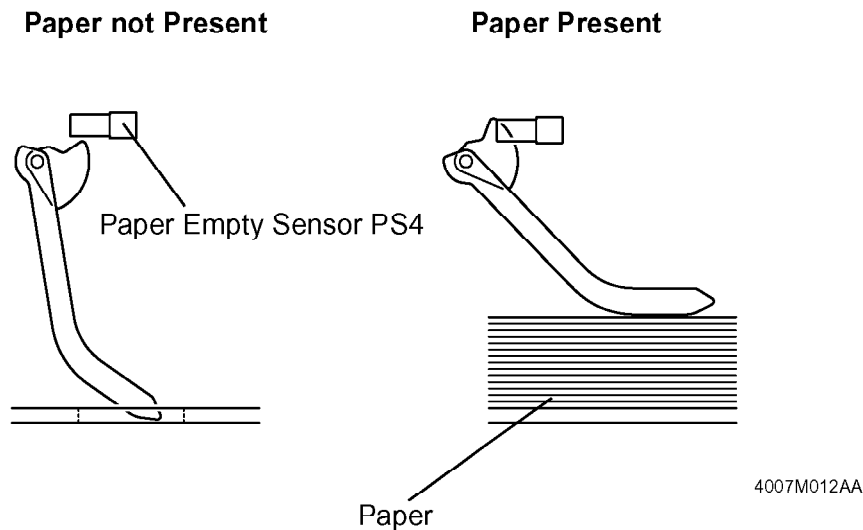


4007M011AB

- |                               |                             |
|-------------------------------|-----------------------------|
| 1. Paper Take-Up Solenoid SL1 | 5. Paper Take-Up Sensor PS1 |
| 2. Paper Empty Sensor PS4     | 6. Separator Pad            |
| 3. Feed Roll                  | 7. Paper Lifting Plate      |
| 4. Paper Take-Up Roll         |                             |

**10-1. Paper Empty Detection Mechanism**

The Paper Empty Sensor detects a paper-empty condition in the Paper Tray.



	CONTROL SIGNAL	Blocked	Unblocked	WIRING DIAGRAM
PS4	PWB-A PJ10A-3	H	L	1-I

## 10-2. Paper Lifting Mechanism

The paper lifting mechanism raises the paper stack in the tray to press it up against the Paper Take-Up Roll.

The Start key is pressed.



The Main Motor is energized.



The Paper Take-Up Solenoid is energized.



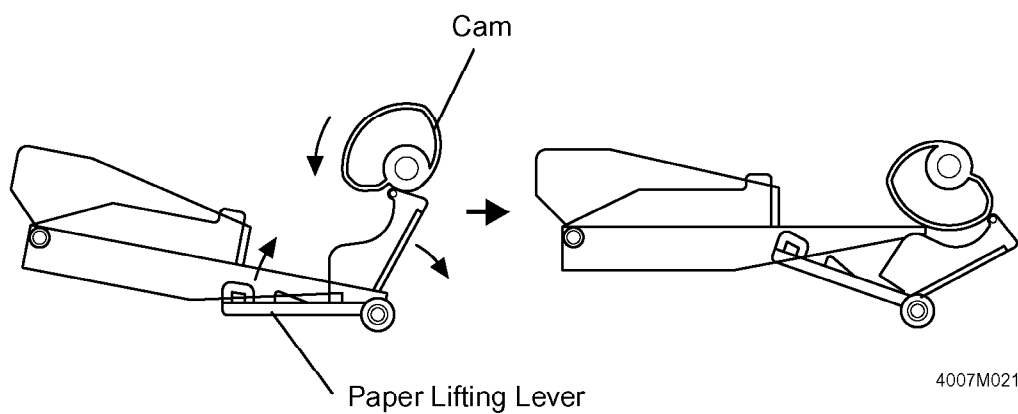
The cam turns and the Paper Lifting Lever goes up. ←



The Paper Take-Up Roll turns to take up and feed one sheet of paper.



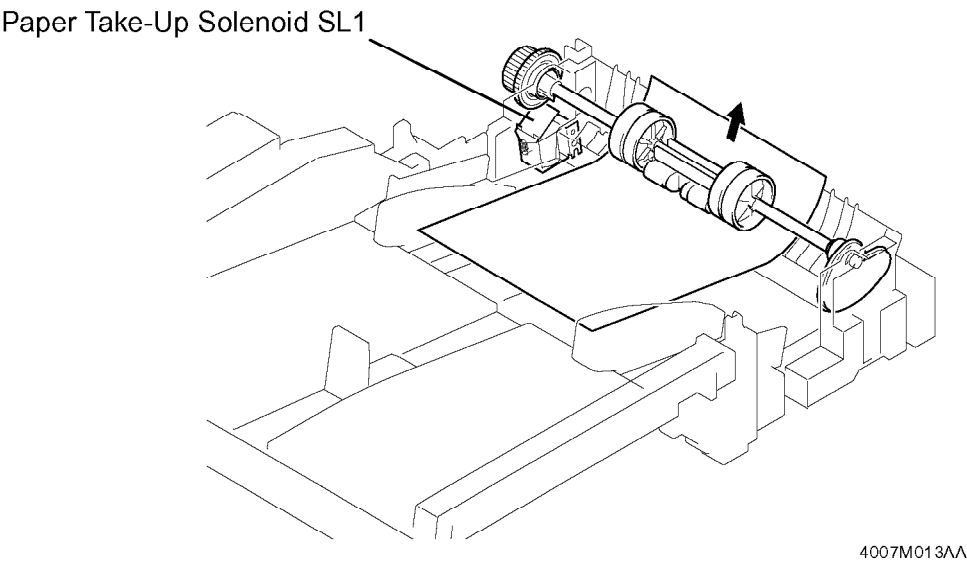
The cam turns and the Paper Lifting Lever goes down.



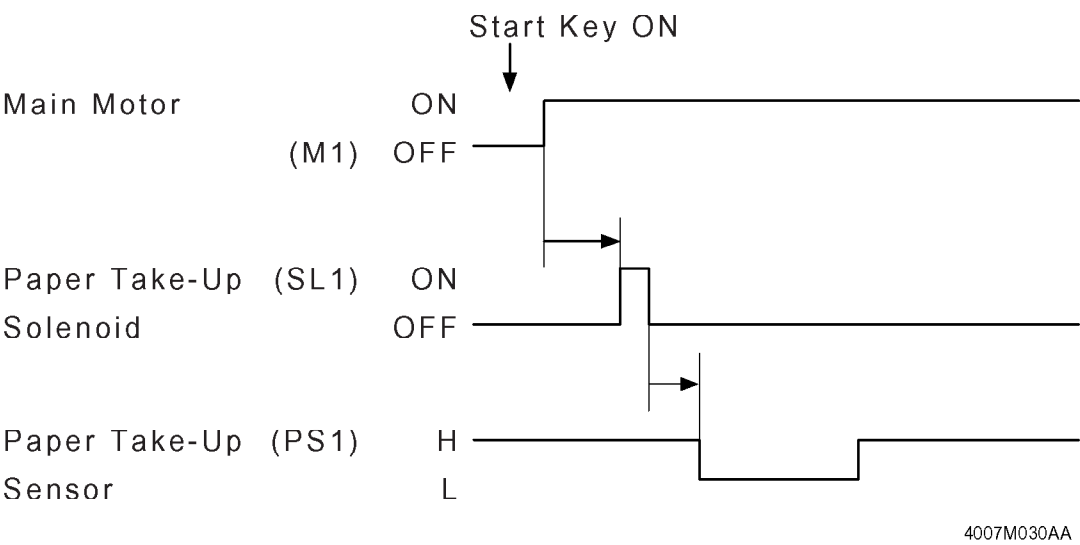
4007M021AA

10-3. Paper Take-Up Mechanism

Drive for the paper take-up sequence is transmitted via the Paper Take-Up Clutch and Paper Take-Up Solenoid from a motor.



10-4. Paper Take-Up Control



	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
SL1	PWB-A PJ3A-2	L	H	1-G

	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
PS1	PWB-A PJ8A-3	L	H	1-H

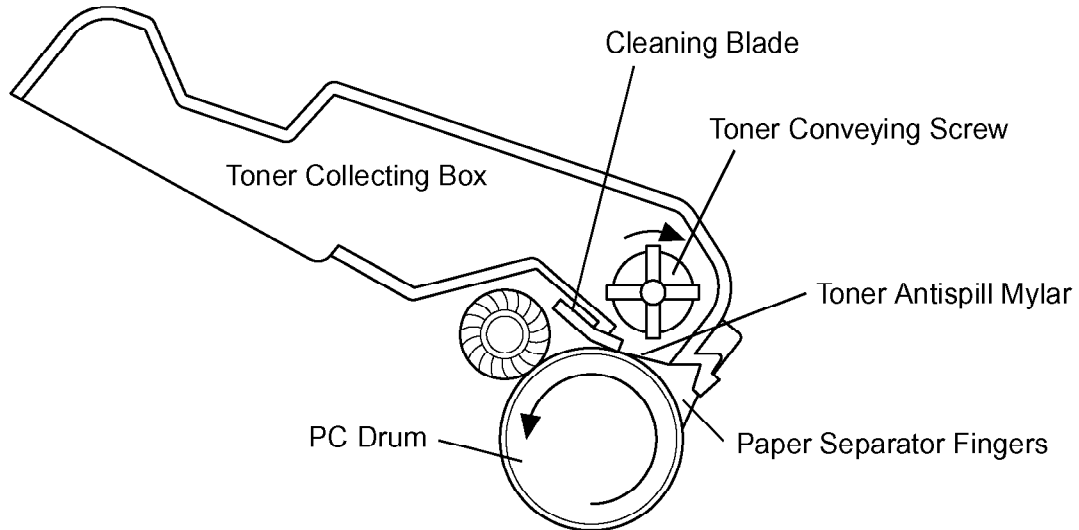
**(1) Paper Take-Up Retry Control**

To minimize the occurrence of a paper misfeed, the paper take-up sequence is temporarily halted if the paper fails to reach the Paper Take-Up Sensor within a given period of time after the sequence has been started. The paper take-up sequence is then performed again. These paper take-up sequences are repeated a given number of times.

	No. of Paper Take-Up Retry Sequences
Paper Take-Up Retry	1

## 11. PC DRUM CLEANING SECTION

- Toner that is left on the surface of the PC Drum after image transfer will be scraped off by the Cleaning Blade and conveyed by the Toner Conveying Screw to the Toner Collecting Box. The Toner Antispill Mylar prevents toner scraped off the surface of the PC Drum from falling over the areas inside the copier.
- The Paper Separator Fingers mechanically separate paper from the surface of the PC Drum after image transfer.



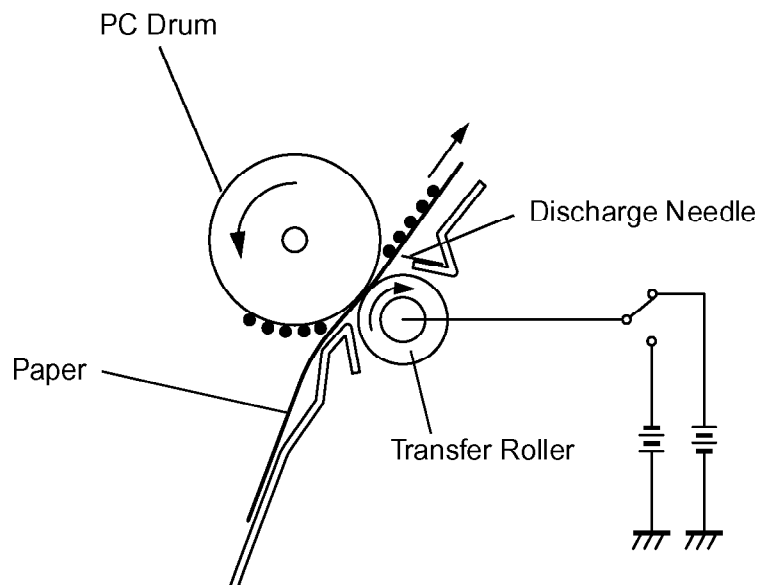
4007M022AA

## 12. IMAGE TRANSFER SECTION

- A positive voltage is applied to the Image Transfer Roller to transfer the toner image on the surface of the PC Drum to the paper.
- The voltage applied to the Image Transfer Roller varies according to the copy image (B/W ratio) or paper size.

B/W Ratio	Paper Size	Image Transfer Output
Low	Small	Great
High	Large	Small

- The Discharge Needle neutralizes residual potential in the paper after image transfer.
- A negative voltage is applied to the Image Transfer Roller after image transfer so that toner sticking to its surface may be returned to the PC Drum for cleaning of the Image Transfer Roller.



4007M031AA

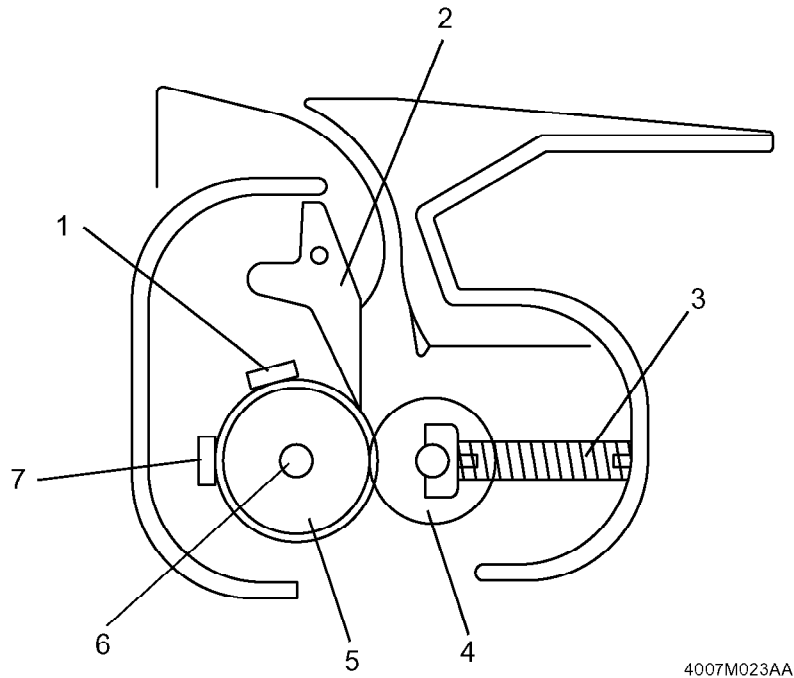
	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
Image Transfer Corona (+)	PWB-A PJ4A-4	L	H	2-E

	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
Image Transfer Corona (-)	PWB-A PJ4A-4	H	H	2-E
	PWB-A PJ4A-8	L	H	



### 13. FUSING UNIT SECTION

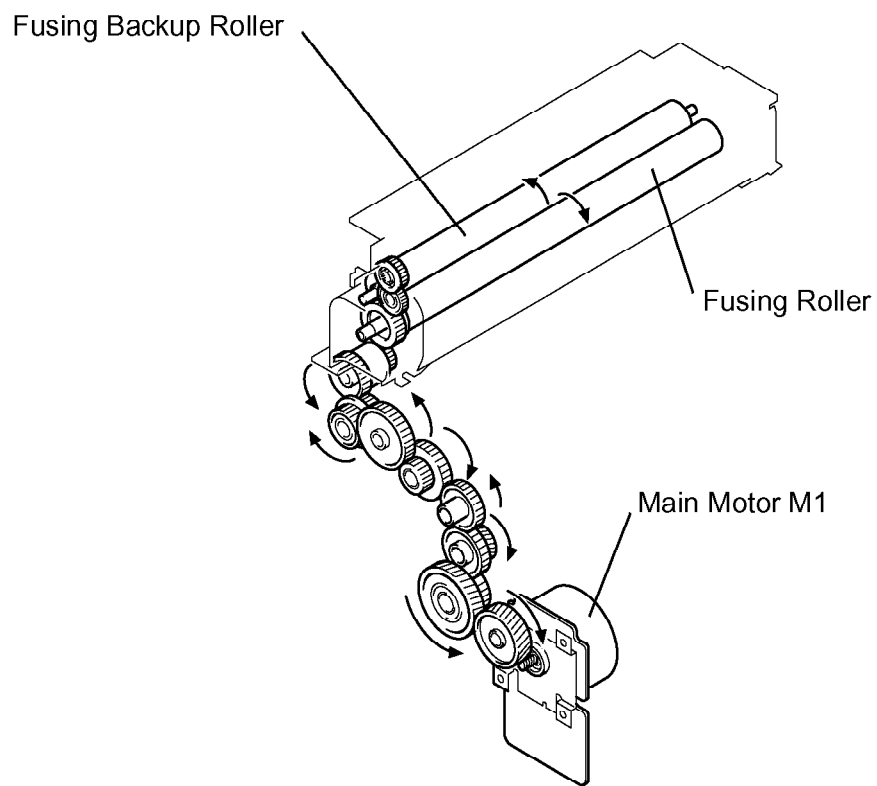
The Fusing Unit fixes permanently the developed image to the paper by applying heat and pressure to the toner and paper.



- |                           |                          |
|---------------------------|--------------------------|
| 1. Thermoswitch TS1       | 5. Fusing Roller         |
| 2. Paper Separator Finger | 6. Fusing Heater Lamp H1 |
| 3. Pressure Spring        | 7. Thermistor TH1        |
| 4. Fusing Backup Roller   |                          |

### 13-1. Fusing Unit Drive Mechanism

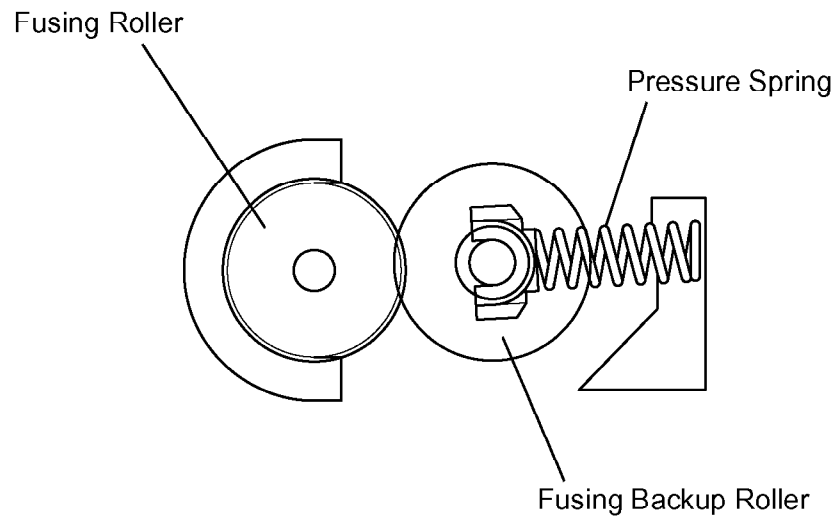
The Fusing Unit is driven by a motor.



4007M014AC

### 13-2. Fusing Rollers Pressure Mechanism

To ensure that there is a given width of nip between the Fusing Roller and Fusing Backup Roller, pressure springs are installed at the front and rear ends of the Backup Roller. These springs exert a pressure to press the Backup Roller against the Fusing Roller.

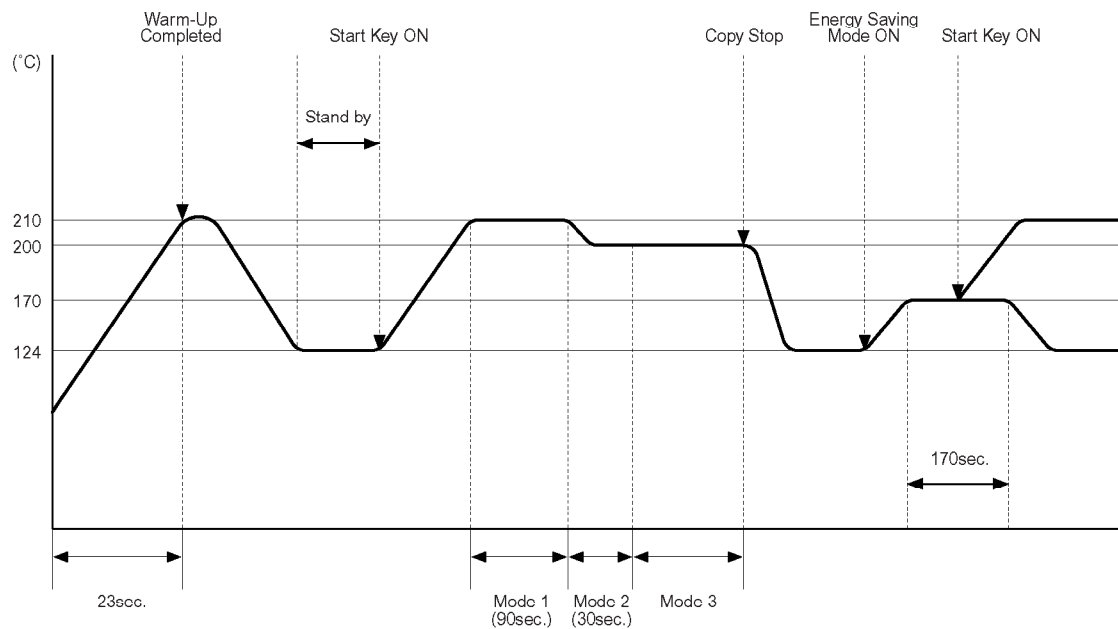


4007M024AA

### 13-3. Fusing Temperature Control

- The Fusing Roller Heater Lamp is turned ON and OFF to keep a set temperature on the surface of the Fusing Roller.
- The Fusing Roller surface temperature is detected by using a thermistor that translates the temperature to a corresponding electrical signal.
- If the Fusing Roller temperature becomes excessively high, the Fusing Heater Lamp is shut down.

Part Name	Symbol	Function
Fusing Heater Lamp	H1	<ul style="list-style-type: none"> <li>• Turns ON during the warm-up cycle.</li> <li>• Turns ON during a copy cycle.</li> <li>• Turns ON in the standby state.</li> </ul>
Thermistor	TH1	<ul style="list-style-type: none"> <li>• Detects the surface temperature of the Fusing Roller.</li> <li>• Controls the Fusing Heater Lamp to turn ON and OFF.</li> </ul>
Thermoswitch	TS1	<ul style="list-style-type: none"> <li>• Detects the surface temperature of the Fusing Roller.</li> <li>• Cuts off power when the temperature of the Fusing Roller becomes inordinately high.</li> </ul>



4007M027CA

Conditions	Mode 1	Mode 2	Mode 3
Plain Paper	210 °C (90 s)	210 °C→200 °C (30 s)	200 °C
Thick Paper	210 °C		
In standby state	124 °C		
In Power Save mode	170 °C		

	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
H1	PWB-A PJ14A-3	L	H	2-B

	CONTROL SIGNAL	Low Temp. ◀▶ High Temp.	WIRING DIAGRAM
TH1	PWB-A PJ2A-1	Analog Input	1-B

#### (1) Fusing Temperature Control during continuous small-size paper feeding

- If paper of a small size is continuously fed through the copier in the Thick Paper mode, the temperature on the edges of the Fusing Roller will rise. When paper of a large size is next fed through the copier, offset can at times occur at the areas on the copy equivalent to the high temperature zones of the Fusing Roller.
- The copying speed is then decreased from 15 copies/min. to 9 copies/min. to allow a greater interval between sheets of paper, thereby preventing the temperature on the ends of the Fusing Roller from rising.
- This control is provided when 10 or more copies are made continuously in the Thick Paper mode.

### 13-4. Mechanism and Control of Fusing Roller Small-Amount Turning

- If the Fusing Roller is kept stationary in temperature controlled state, the temperature of only the nip becomes inordinately high due to heat and pressure, which tends to cause the paper to be wavy.
- Immediately after the Start key has been pressed, the Main Motor is energized to move the Fusing Roller a half turn.
- Whether to provide this control or not can be selected with "C3 Predrive" of Tech. Rep. Choice.

## 14. OTHER MECHANISMS

### 14-1. Memory Backup

EEPROM (U21) connected to the Control Board PWB-I stores the setting/adjustment values set in the Tech. Rep. modes as well as the counter counts.

---

**IMPORTANT**

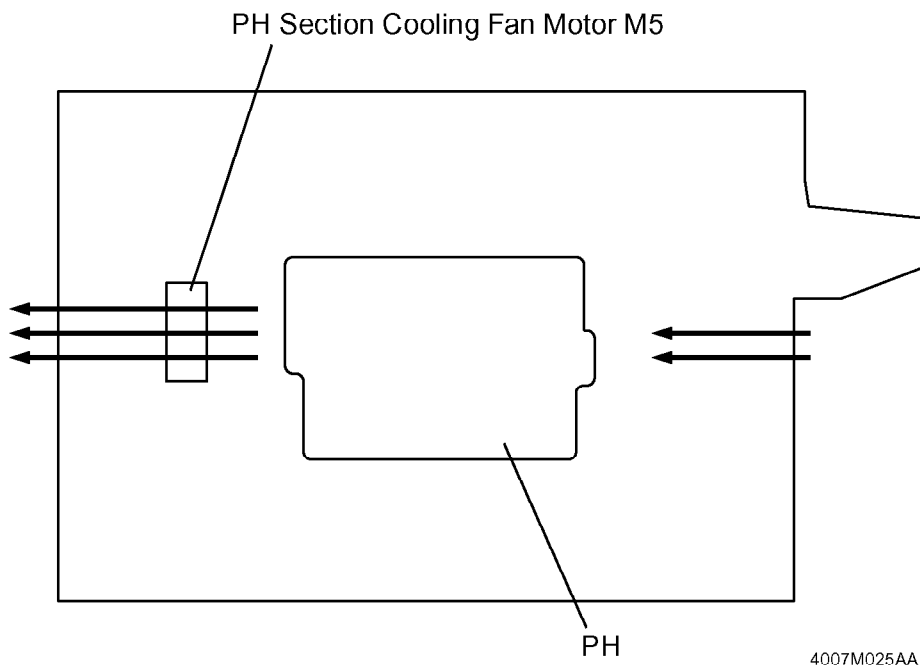
*It should also be noted that the EEPROM (U21) should not be replaced at the same time when the Control Board is replaced.*

---

14-2. Cooling Mechanism

(1) PH Section Cooling Mechanism

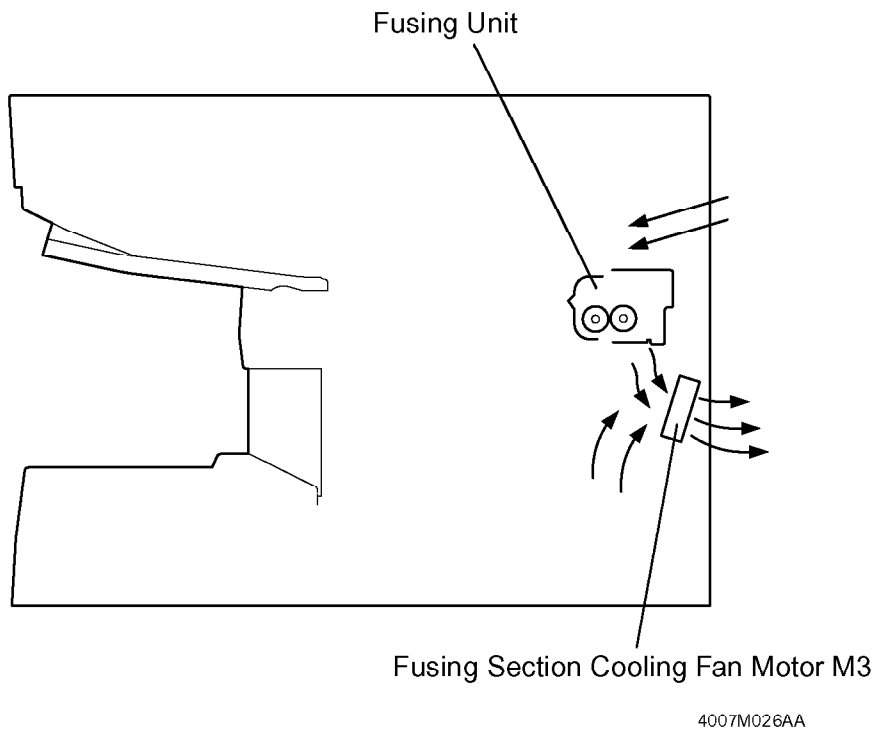
The PH Section Cooling Fan Motor discharges heat to the outside of the copier to prevent the temperature of the PH Section from rising inordinately.



	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
M5	PWB-A PJ13A-1	L	H	4-A

**(2) Fusing Section Cooling Mechanism**

The Fusing Section Cooling Fan Motor discharges heat generated by the Fusing Unit to the outside of the copier to prevent the temperature of the copier interior from rising inordinately. It also functions to draw paper being transported down onto the Suction Deck.



	CONTROL SIGNAL	ON	OFF	WIRING DIAGRAM
M3	PWB-A PJ14A-1	L	H	1-A





---

# DIS/REASSEMBLY, ADJUSTMENT

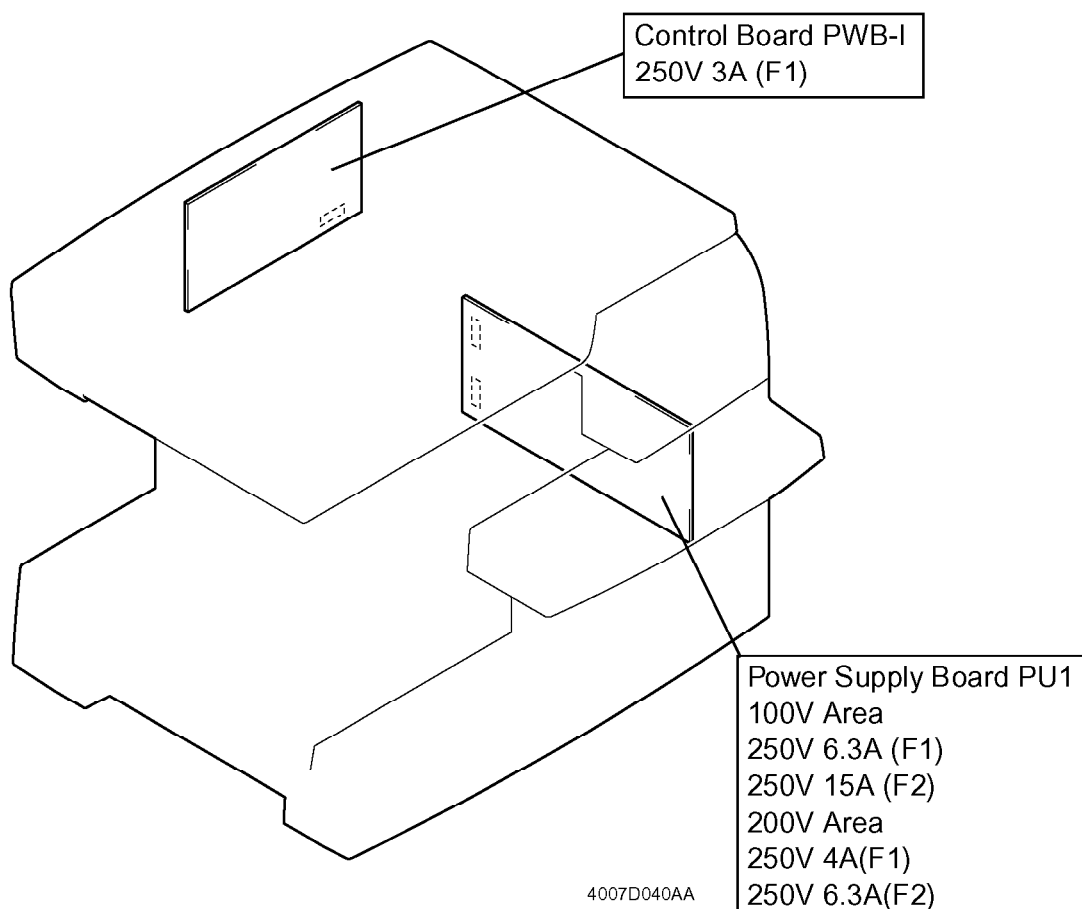
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# 1. SERVICE INSTRUCTIONS

## 1-1. IDENTIFICATION OF FUSES



## 1-2. PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

- The laser used in this copier is a semiconductor laser with the following specifications:

Max. power: 5 mW Output wavelength: 770 to 795 nm
--

- When laser protective goggles are to be used, select ones with a lens conforming to the above specifications.
- When a disassembly job needs to be performed in the laser beam path, such as when working around the PH and PC Drum, be sure to turn the copier OFF first.
- If the job requires that the copier be left ON, take off your watch and ring and wear laser protective goggles.
- A highly reflective tool can be dangerous if it is brought into the laser beam path. Use utmost care when handling such tools near the laser.
- The PH is not maintainable in the field. It is to be replaced as a unit including the control board. Never, therefore, attempt to remove the laser diode or adjust trimmers on the control board.

## 1-3. PARTS WHICH MUST NOT BE TOUCHED

### (1) Red Screws

---

#### ***Purpose of Application of Red Paint***

*Red painted screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be readjusted, set, or removed in the field.*

*Note that when two or more screws are used on the part in question, only one representative screw may be marked with red paint.*

---

### (2) Variable Resistors on Board

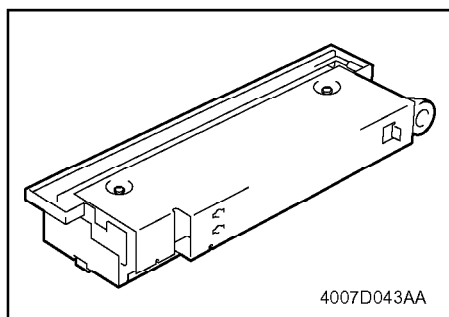
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*Do not turn the variable resistors on boards for which no adjusting instructions are given in "ADJUSTMENT."*

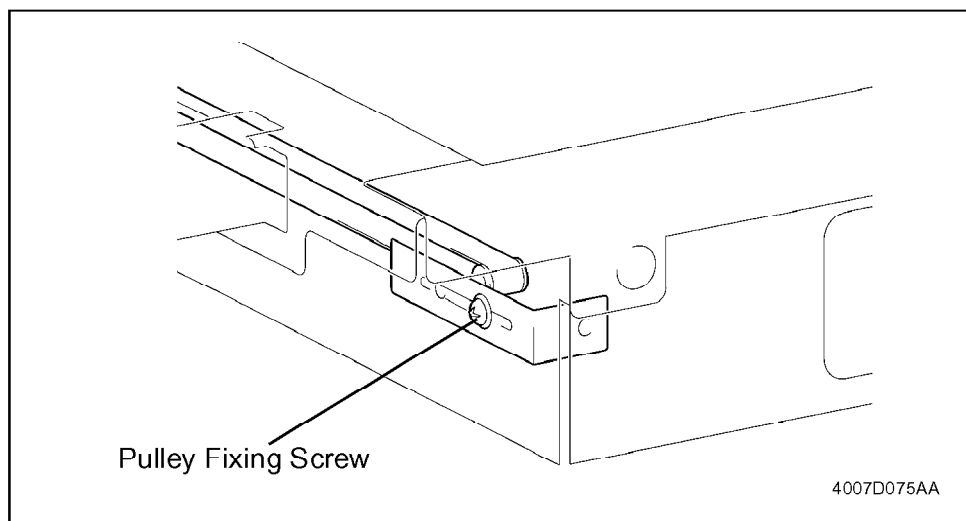
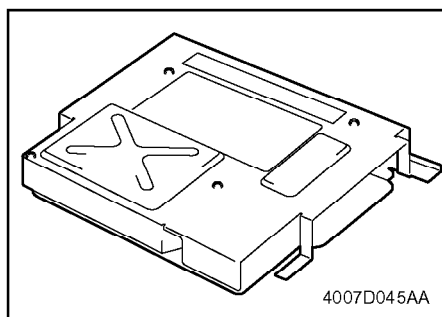
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### (3) Other Screws

Scanner



PH Unit



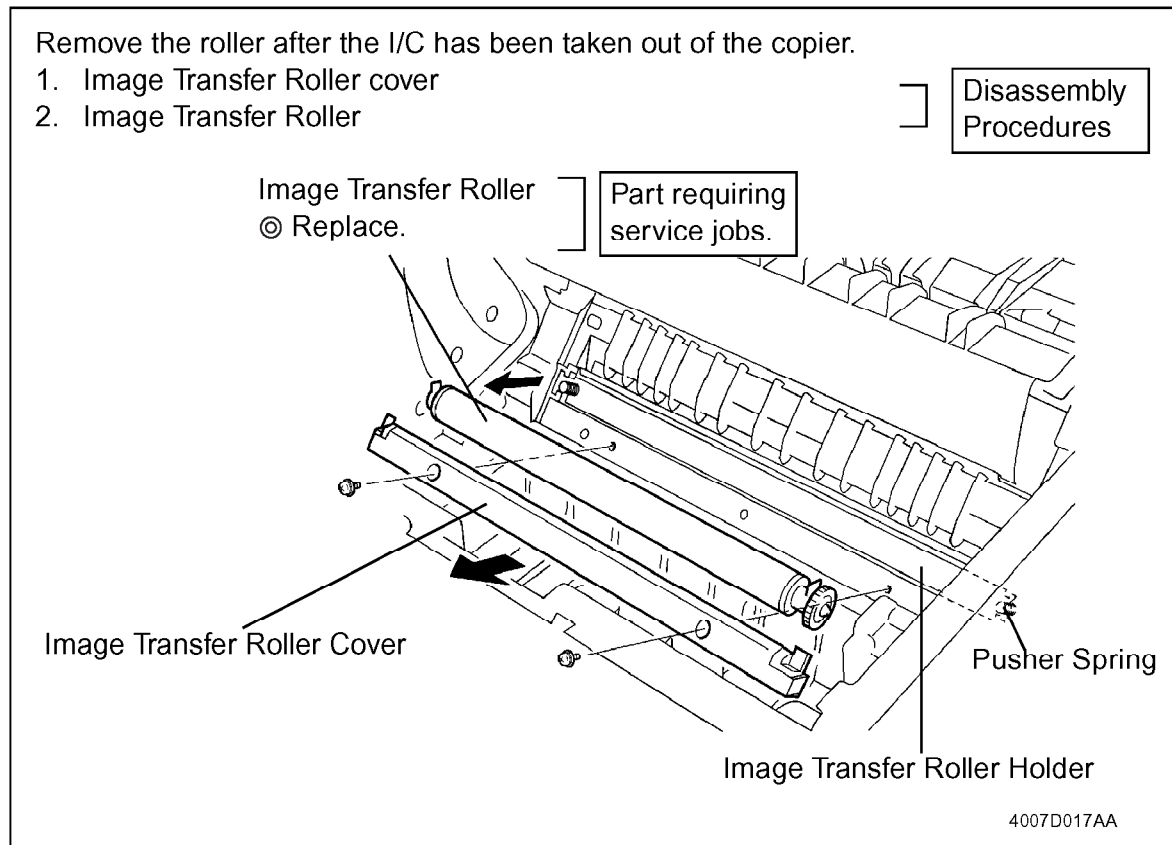
## 1-4. READING THE TEXT

Disassembly procedures are given under separate titles; illustrations identify each part only.

Parts that require special attention and service jobs are given at the corresponding part name in the illustration.

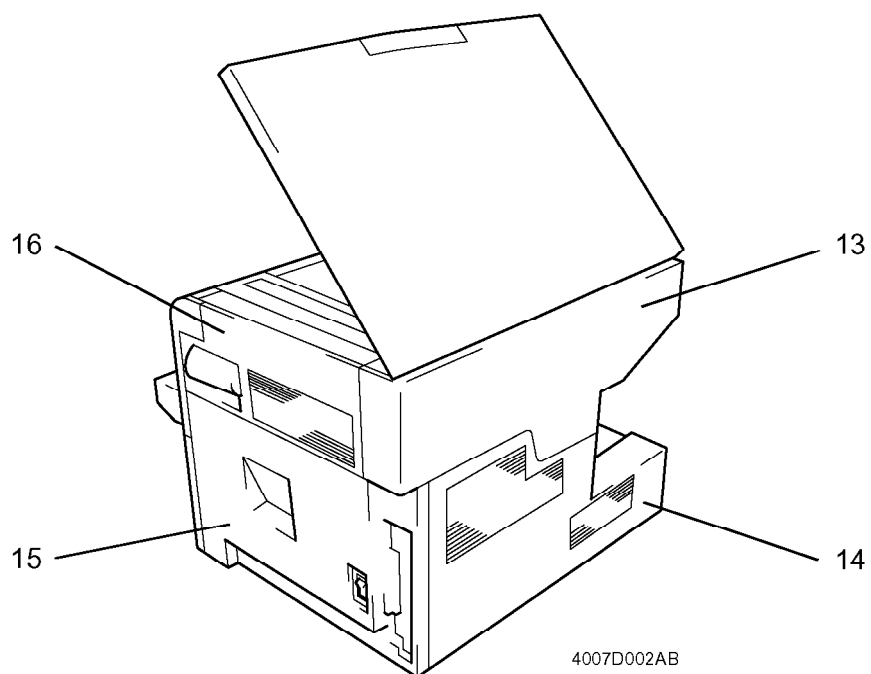
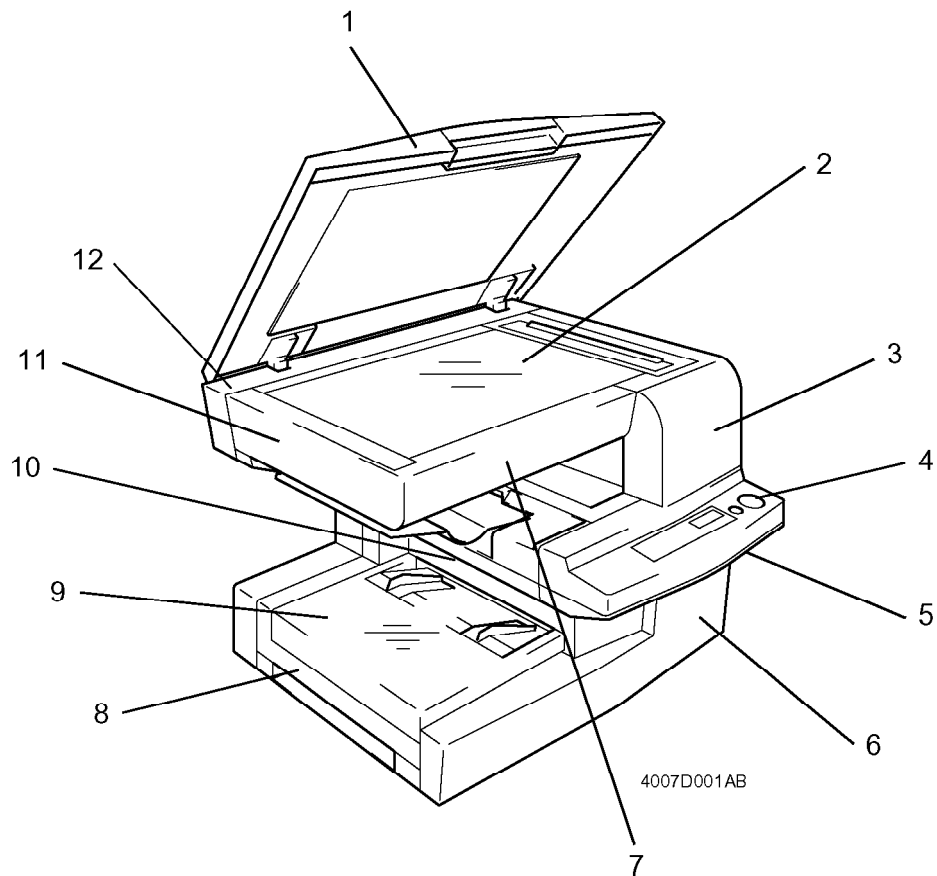
The disassembly procedures omit removal of exterior parts.

 D-4



## 2. DISASSEMBLY/REASSEMBLY

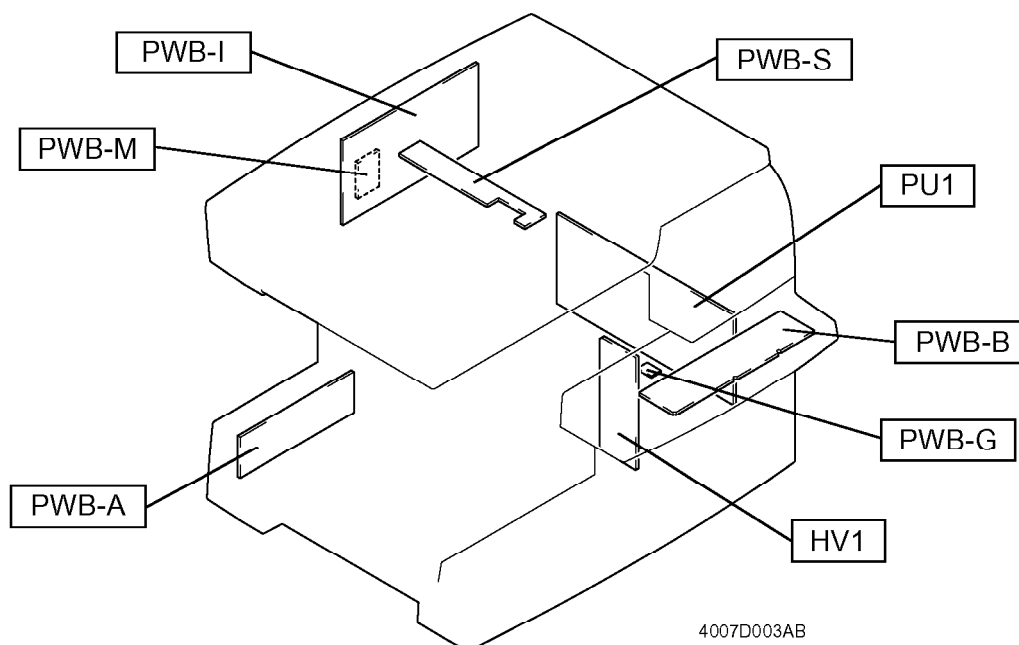
### 2-1. COVERS AND EXTERIOR PARTS: IDENTIFICATION AND REMOVAL PROCEDURES



No.	Name	Removal Procedure
1	Original Cover	Remove screws that secure the Original Cover.
2	Original Glass	Remove 1. → Remove 13. → Remove 12. → Remove 3. → Remove 7. → Remove the Original Glass holding brackets (two at the front).
3	Front Upper Cover	Remove screws that secure the Front Upper Cover.
4	Control Panel	Remove 3. → Remove screws that secure the control panel.
5	Front Middle Cover	Remove 3. → Remove 4. → Remove screws that secure the Front Middle Cover.
6	Front Lower Cover	Release and swing up the upper half of the copier. → Remove screws that secure the Front Lower Cover.
7	Front IR Cover	Remove 3. → Remove screws that secure the Front IR Cover.
8	Paper Tray	Remove 9. → Release and swing up the upper half of the copier. → Remove 6. → Remove 14. → Remove the screw that secures the Paper Tray.
9	Manual Bypass Tray	_____
10	Paper Exit Tray Lower Cover	Remove 9. → Remove 6. → Remove 14. → Remove 8. → Remove screws that secure the Paper Exit Tray Lower Cover.
11	Left IR Cover	Remove 1. → Remove 3. → Remove 7. → Remove 13. → Remove 12. → Remove screws that secure the Left IR Cover.
12	Rear IR Upper Cover	Remove 1. → Remove 13. → Remove screws that secure the Rear IR Upper Cover.
13	Rear Upper Cover	Remove 14. → Remove screws that secure the Rear Upper Cover.
14	Rear Lower Cover	Remove screws that secure the Rear Lower Cover.
15	Right Cover	Release and swing up the upper half of the copier. → Remove the 14. → Remove screws that secure the Right Cover.
16	Right IR Cover	Remove 3. → Remove 1. → Remove 13. → Remove 12. → Remove screws that secure the Right IR Cover.

## 2-2. REMOVAL OF PWBs

- The removal procedures given below omit the steps of unplugging connectors and removing the PWB from the PWB support.
- Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.





Symbol	Name	Removal Procedure
PWB-A	Master Board	Remove the Rear Upper Cover and Rear Lower Cover. → Remove the protective cover. → PWB-A
PWB-B	Control Panel	Remove the Front Upper Cover. → Remove the Control Panel. → PWB-B
PWB-G	Toner Empty Board	Remove all exterior covers. → Remove the upper half of the copier. → Remove the rear side plate. → Remove the Paper Take-Up Roll Cover Assy. → PWB-G
PWB-I	Control Board	Remove the Rear Lower Cover and Rear Upper Cover. → Remove the protective cover. → PWB-I
PWB-M	Memory Board	Remove the Rear Lower Cover and Rear Upper Cover. → Remove the protective cover. → PWB-M
PWB-S	Scanner Interface Board	Remove the Front Upper Cover, Front IR Cover, Rear IR Upper Cover, Rear Upper Cover, and Rear Lower Cover. → Remove the Original Glass bracket. → Remove the Original Glass. → Remove the protective cover. → PWB-S
PU1	Power Supply Board	Release and swing up the upper half of the copier. → Remove the Right Cover. → Remove the Power Switch. → Remove the Fusing Section Cooling Fan Motor. → Remove the Fusing Section Cooling Fan Motor mounting bracket. → Remove the Inlet mounting bracket. → PU1
HV1	High Voltage Unit	Remove the Paper Exit Tray Lower Cover. → Remove the Paper Exit Tray. → Release and swing up the upper half of the copier. → Remove the Cover. → Remove the I/C. → Remove the PH Unit. → HV1



## 2-3. MAINTENANCE SCHEDULE

- To ensure that the copier produces good copies and to extend its service life, it is recommended that the maintenance jobs described in this schedule be carried out as instructed.

	PM Parts	Maintenance Schedule (K)		Part No.	Qty	Reference Page
		Cleaning	Replacement			
Fusing Section	Fusing Unit	—	50	100V Area 4007-0431-02 200V Area 4007-0432-02	1	 D-15
Image Transfer Section	Image Transfer Roller	—	50	4110-4103-01	1	 D-17

## 2-4. REMOVAL OF UNITS

### (1) Removal of the Upper Half of the Copier

Remove the upper half of the copier after the Front Upper Cover, control panel, Front Middle Cover, Rear Upper Cover, and Paper Exit Tray Lower Cover have been removed.

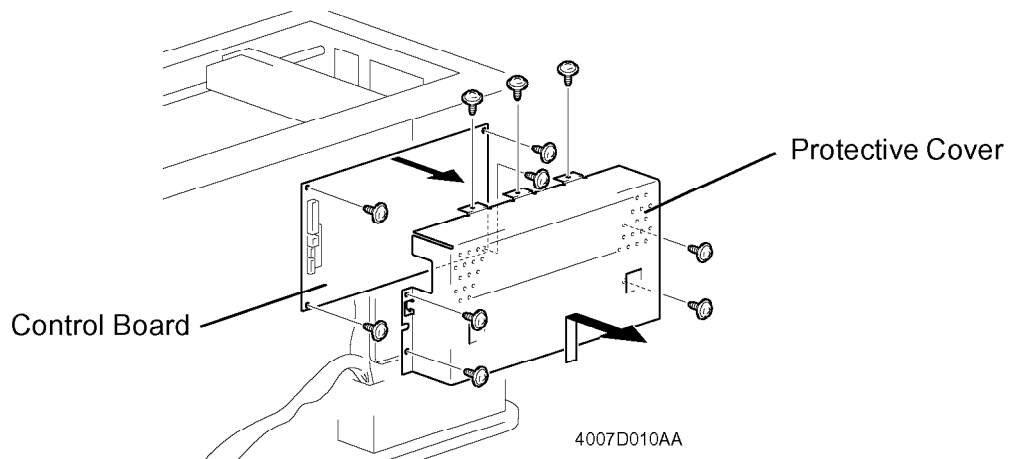
1. Protective cover
2. Control Board

---

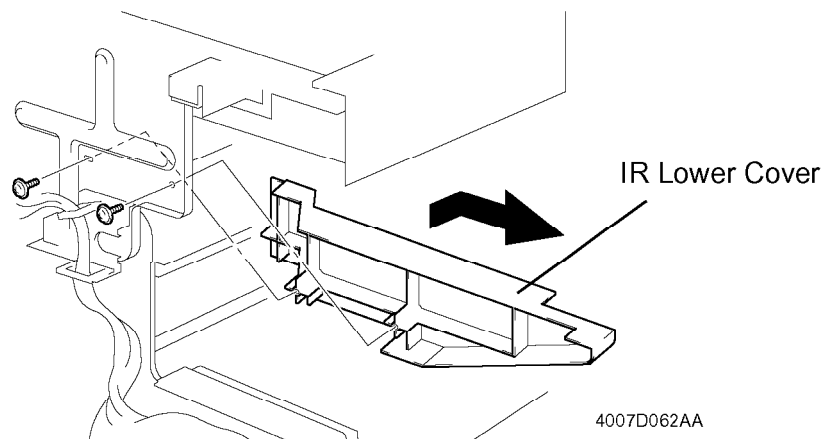
**NOTE**

*Unplug all print jacks from the PWB.*

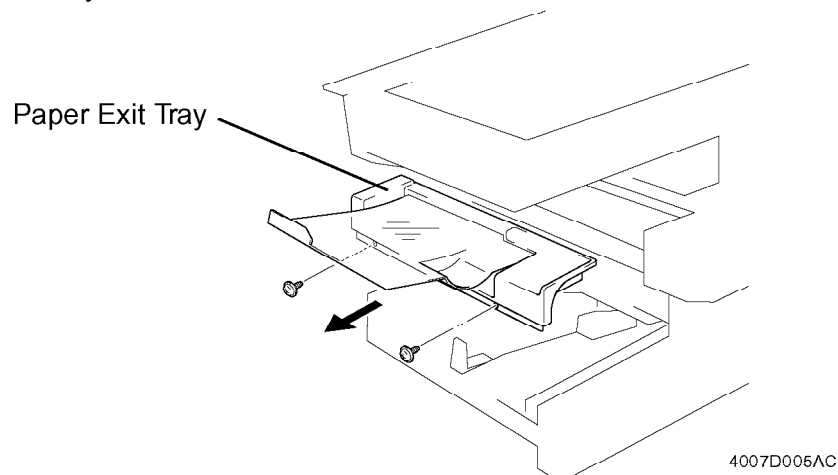
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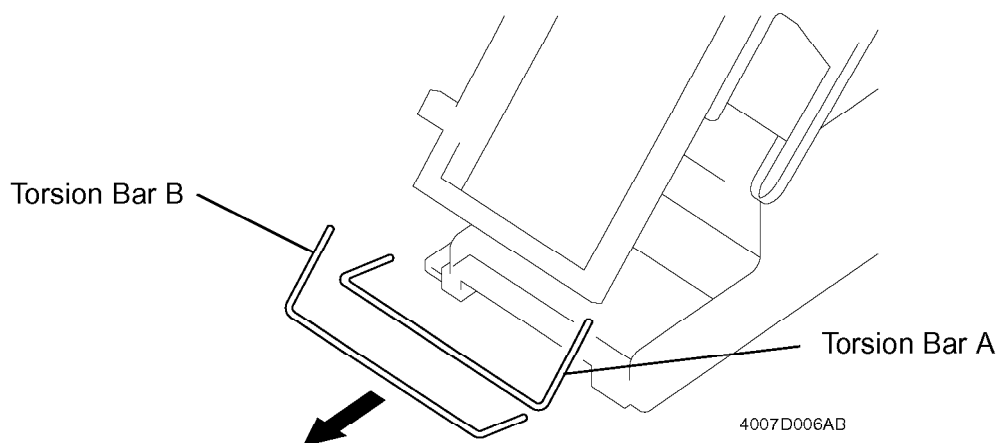
3. IR Lower Cover



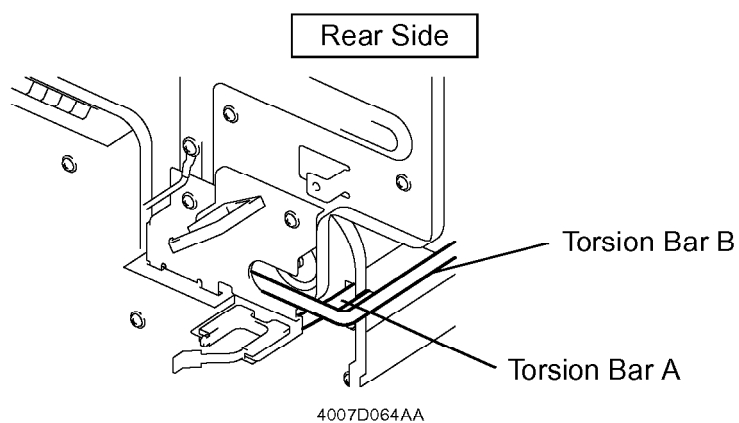
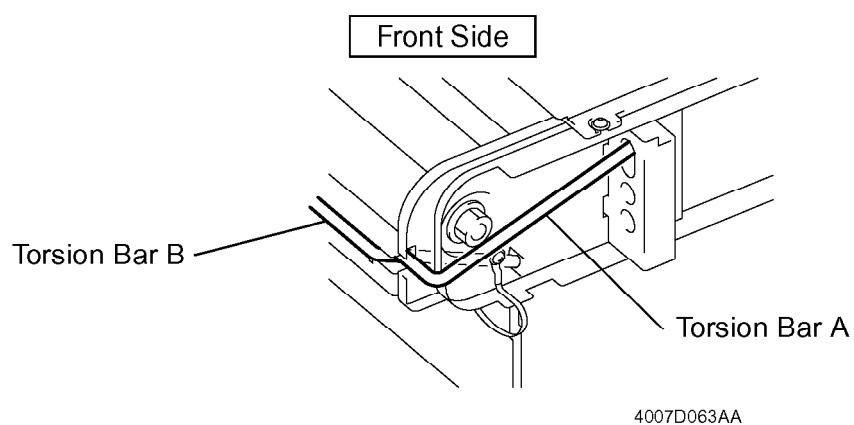
4. Paper Exit Tray



## 5. Torsion Bars A and B



### Torsion Bar Mounting Position



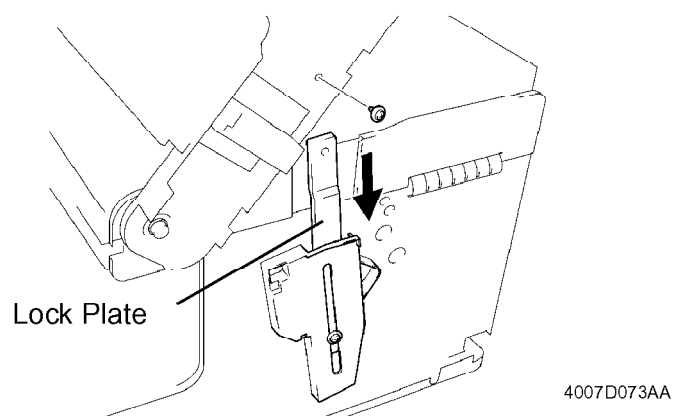
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### **NOTE**

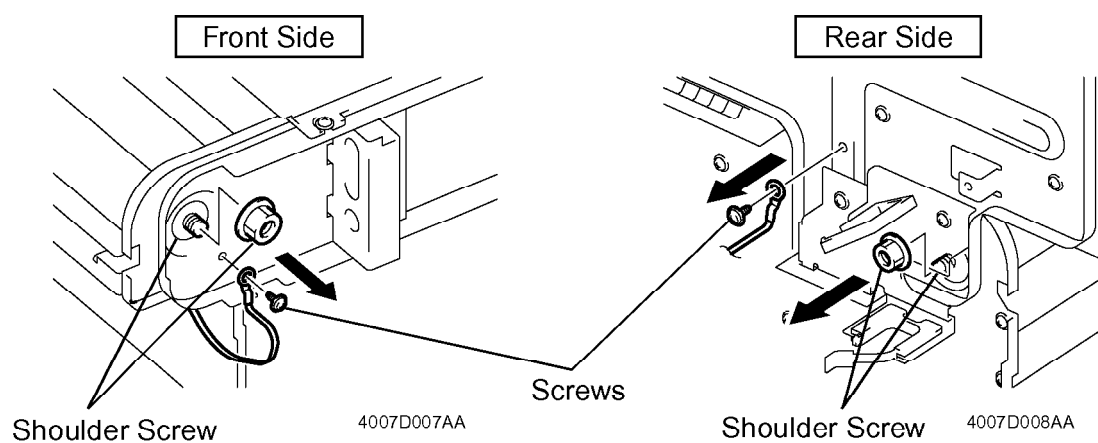
*Before removing or reinstalling the torsion bars, be sure to release and swing up the upper half of the copier to release pressure.  
When reinstalling them, install torsion bar A first, then torsion bar B.*

---

6. Lock Plate



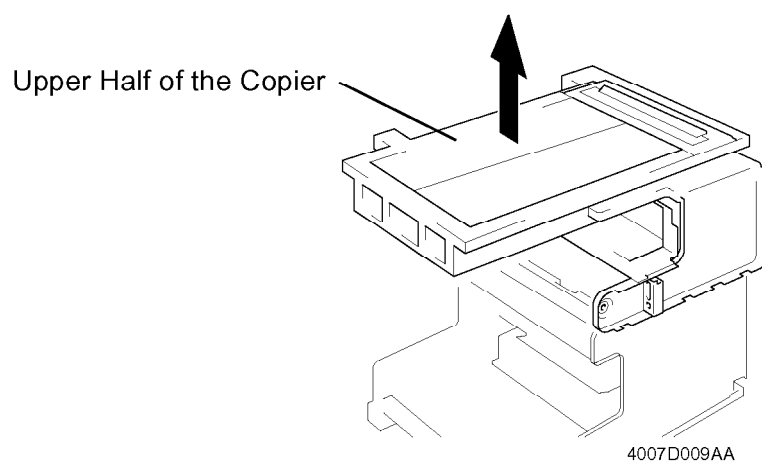
7. Shoulder screws and other screws



**NOTE**

When mounting the shoulder screws, make sure that the round hole and the slot in the frames are properly aligned with each other.

8. Upper half of the copier



## (2) Removal of the IR Unit

Remove the IR Unit after the Front Upper Cover, Front IR Cover, Rear IR Upper Cover, Rear Upper Cover, Rear Lower Cover, and Right IR Cover have all been removed.

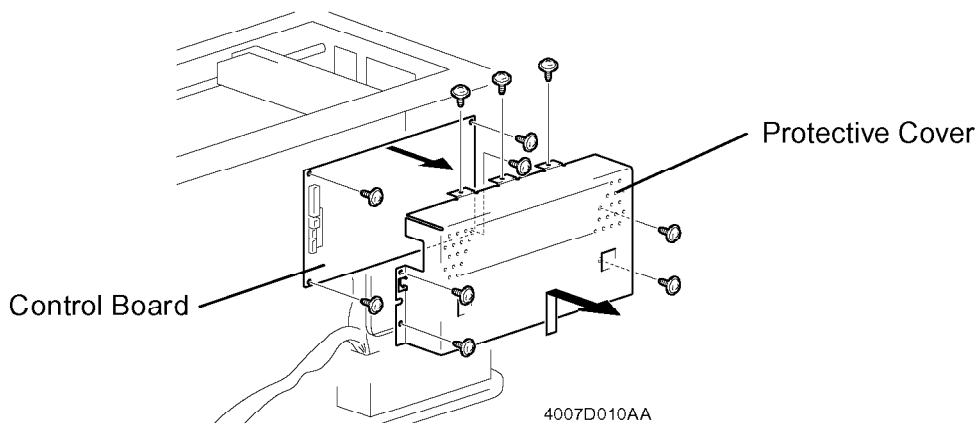
1. Protective Cover
2. Control Board

---

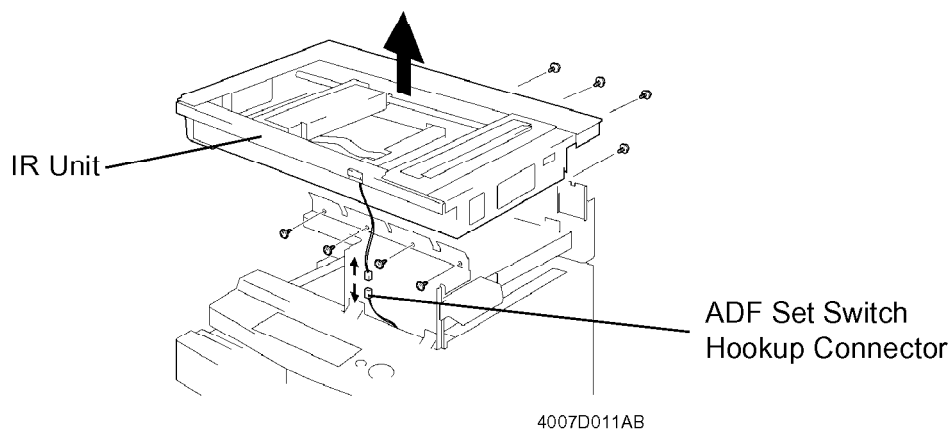
### **NOTE**

*Unplug all print jacks from the PWB.*

---



3. ADF Set Switch hookup connector
4. IR Unit



### (3) Removal of the PH Unit

Remove the PH Unit after the Front Lower Cover, Rear Lower Cover, Paper Exit Tray Lower Cover, and I/C have been removed.

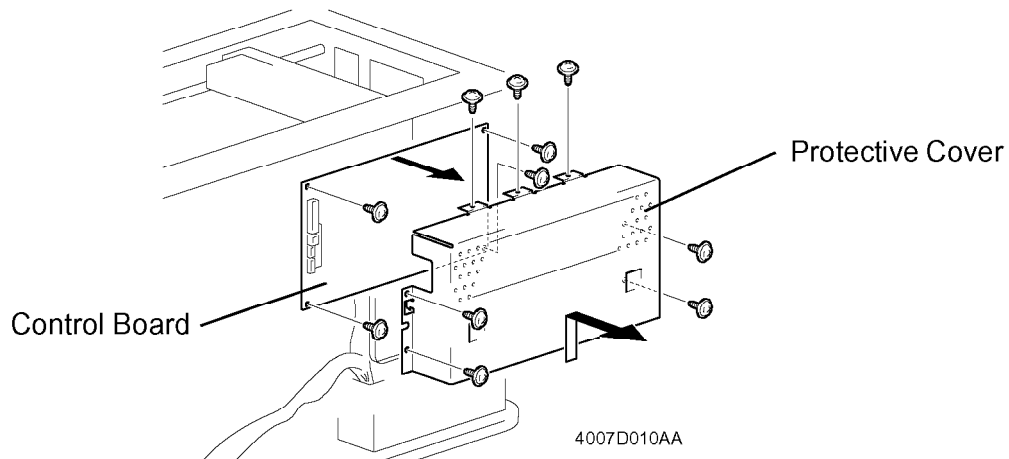
1. Protective cover
2. Control Board

---

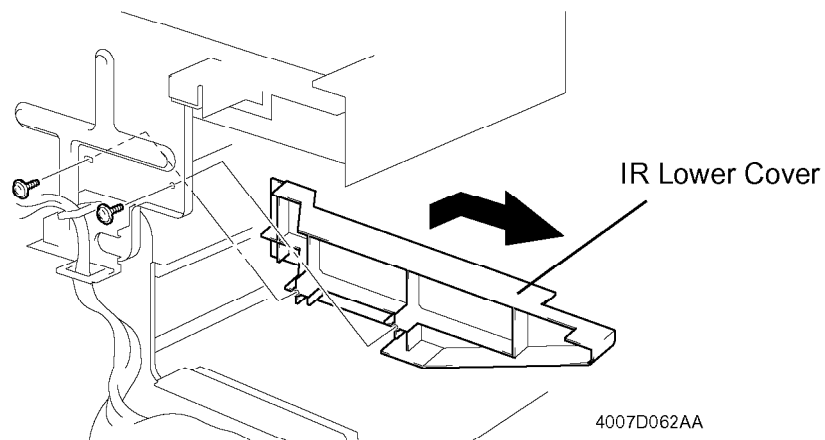
#### **NOTE**

*Unplug all print jacks from the PWB.*

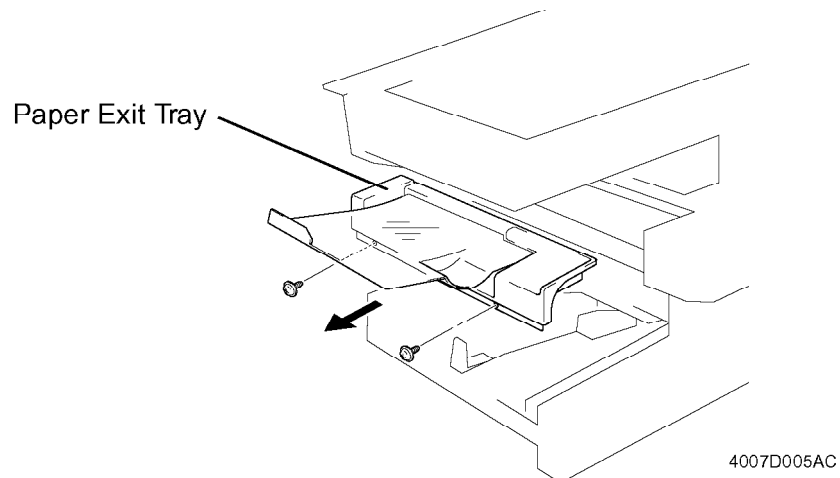
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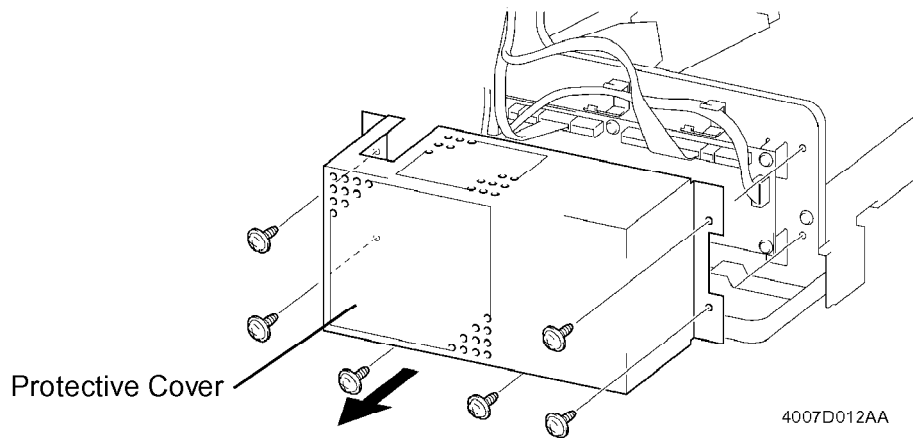
#### 3. IR Lower Cover



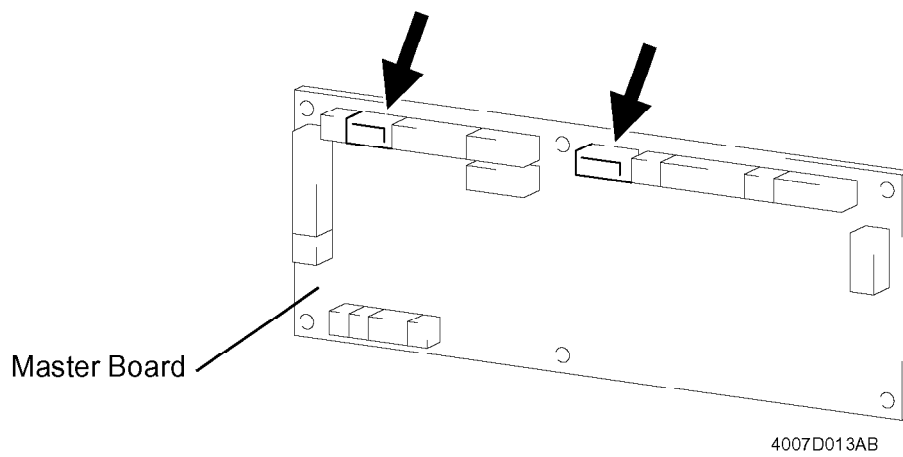
#### 4. Paper Exit Tray



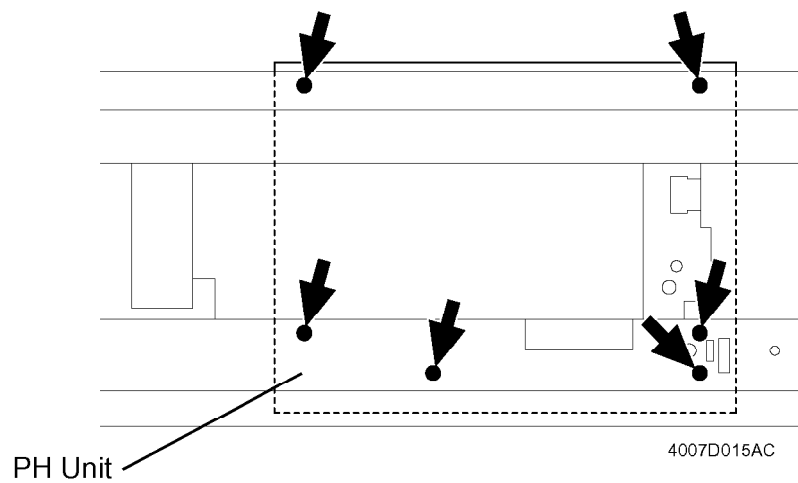
## 5. Protective Cover



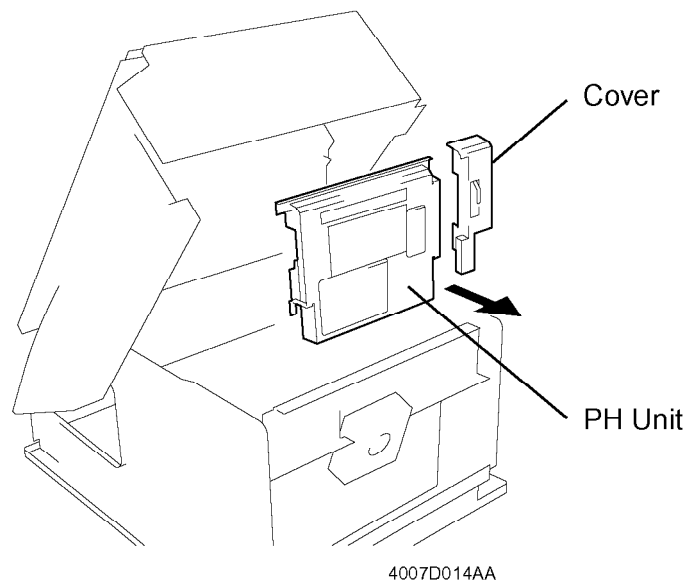
## 6. Print Jack



## 7. PH Unit fixing screws



8. Cover
9. PH Unit



---

**NOTE**

*Take care with the torsion bars: They will come off when the upper half of the copier is swung up.*

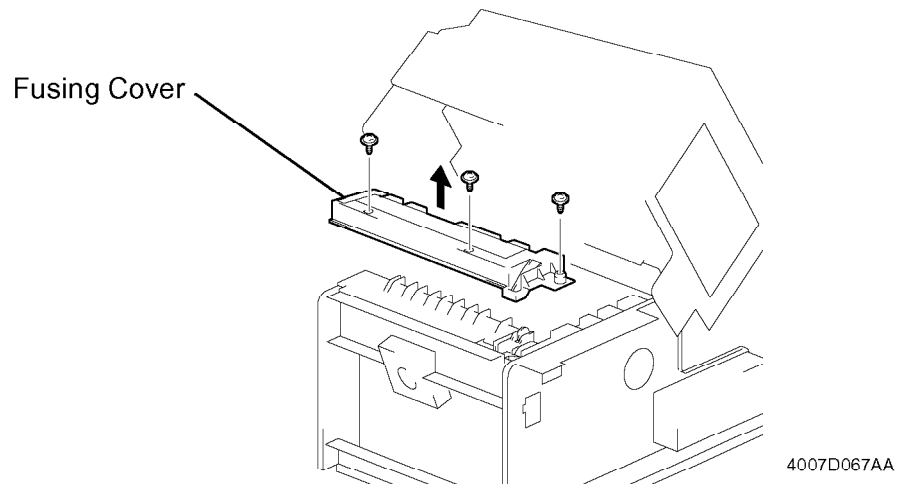
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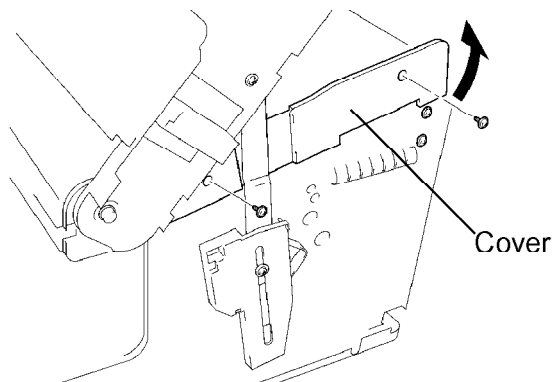
#### (4) Removal of the Fusing Unit

Remove the Fusing Unit after the Right Cover, Rear Lower Cover, Front Lower Cover, and I/C have been removed.

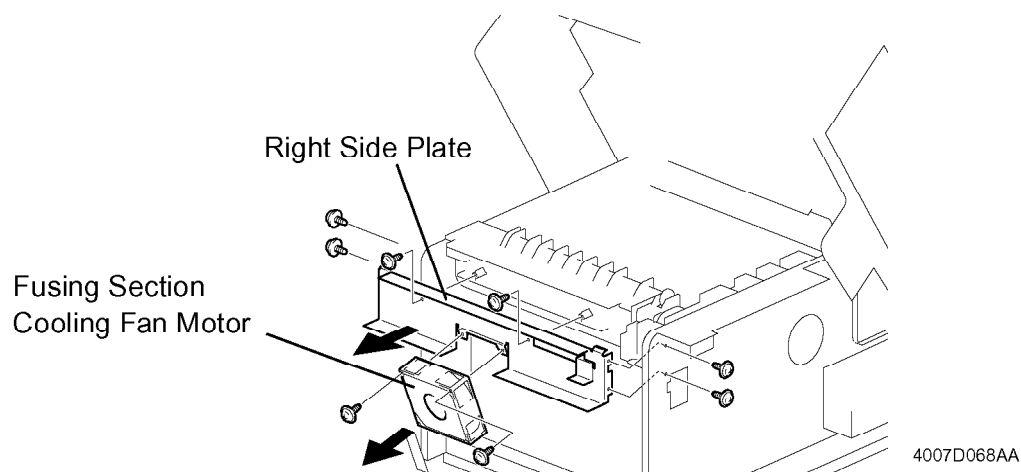
1. Fusing cover



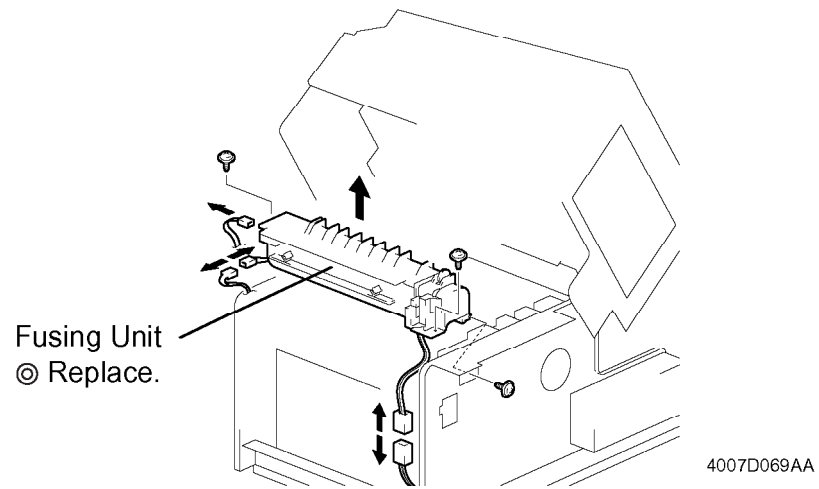
2. Cover



3. Fusing Section Cooling Fan Motor
4. Right Side Plate



## 5. Fusing Unit



## 2-5. IMAGE TRANSFER SECTION

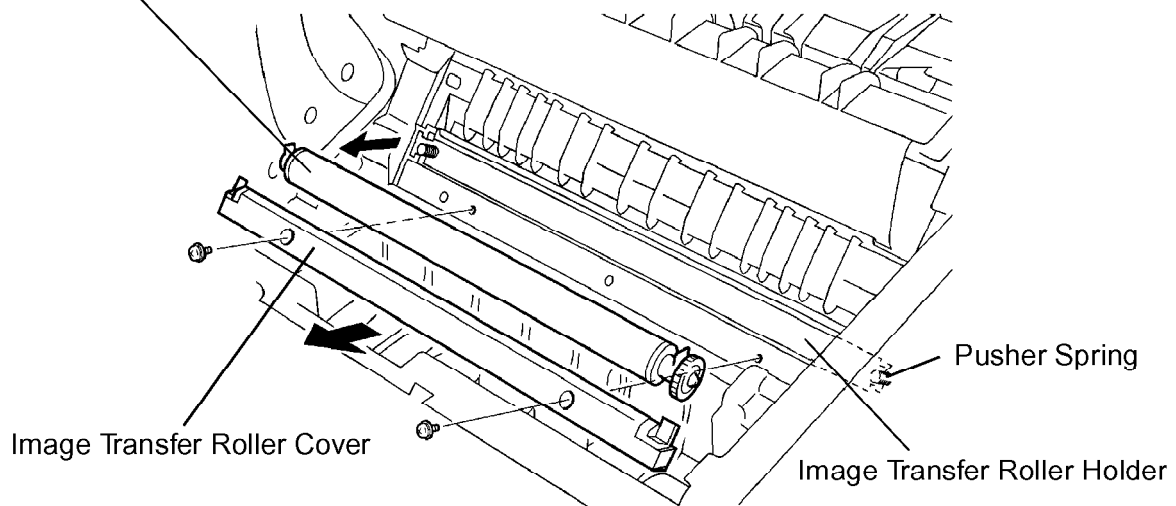
### (1) Replacement of the Image Transfer Roller

Remove the Image Transfer Roller after the I/C have been removed.

1. Image Transfer Roller cover
2. Image Transfer Roller

Image Transfer Roller

© Replace.

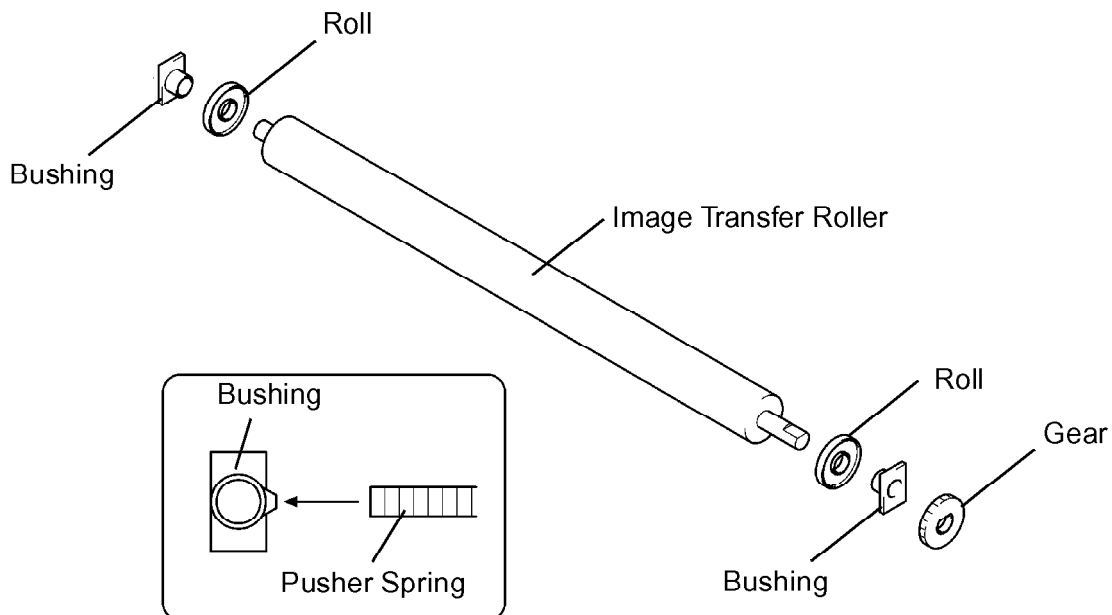


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#### **NOTE**

*Be sure not to lose the pusher springs hooked to the Image Transfer Roller holder.*

3. Gear
4. Bushing
5. Roll
6. Image Transfer Roller

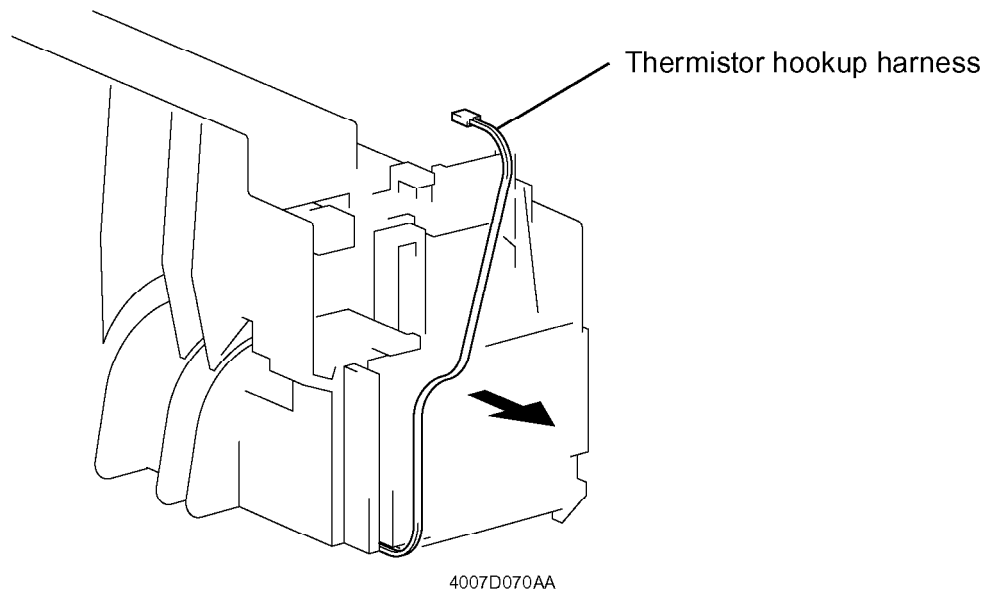


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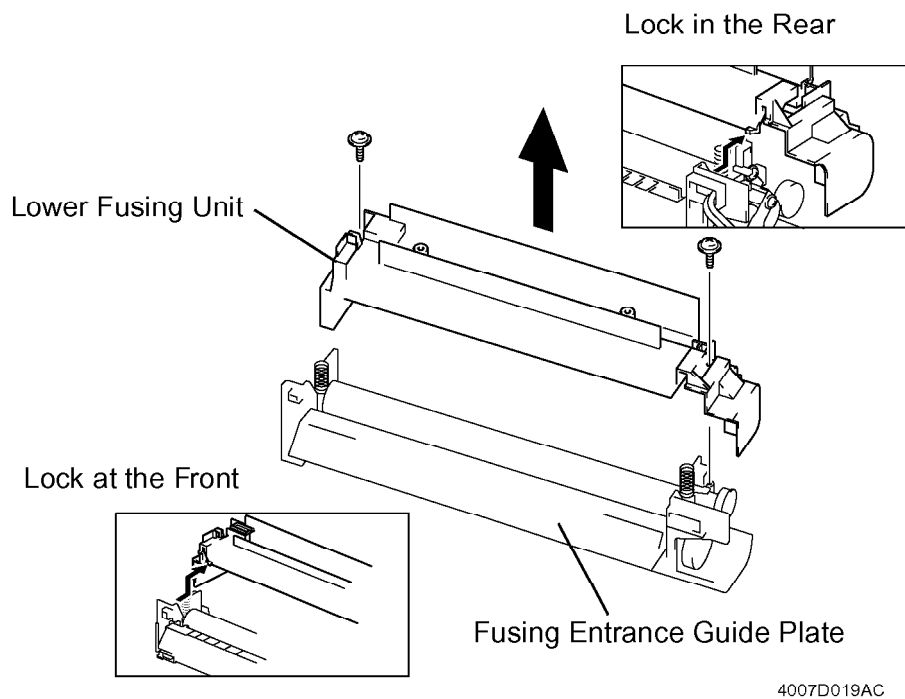
## 2-6. FUSING SECTION

### (1) Removal of the Fusing Backup Roller

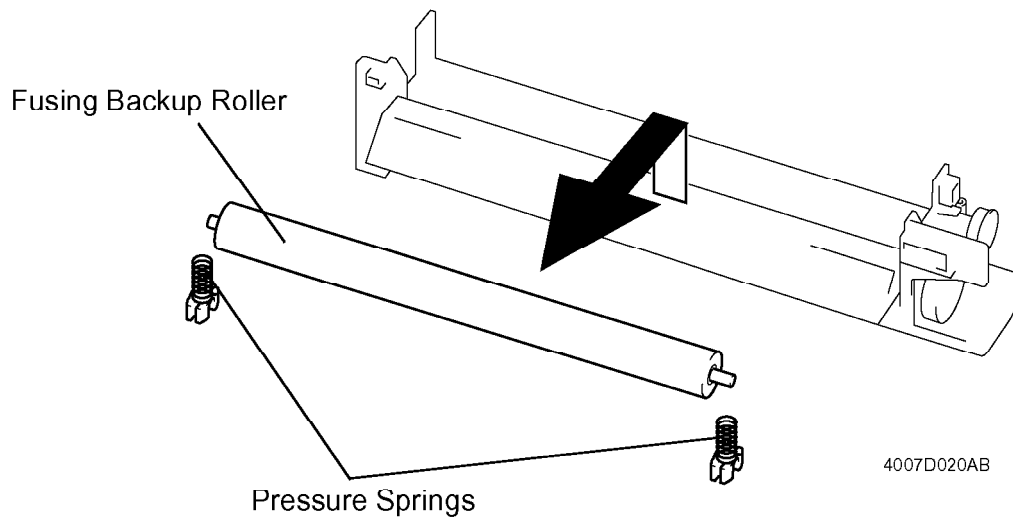
1. Thermistor hookup harness



2. Lower Fusing Unit
3. Fusing Entrance Guide Plate



4. Pressure spring
5. Fusing Backup Roller

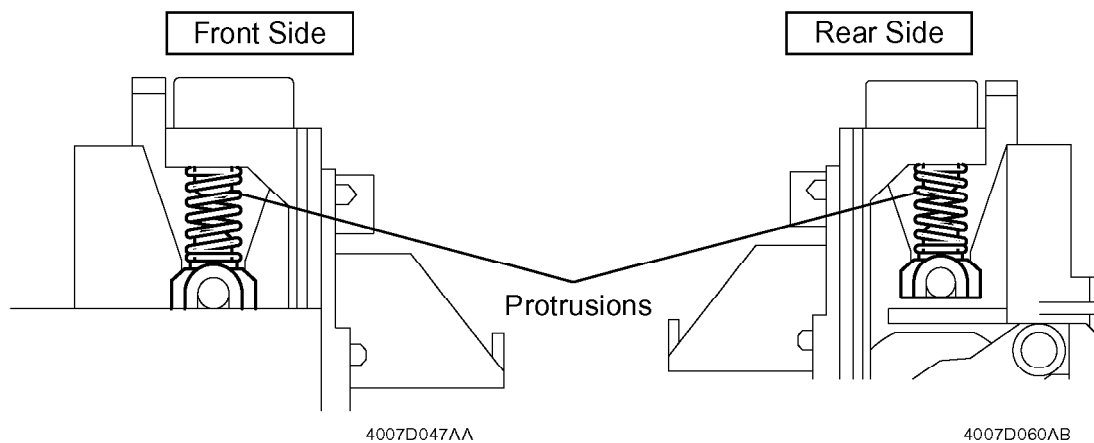


---

**NOTE**

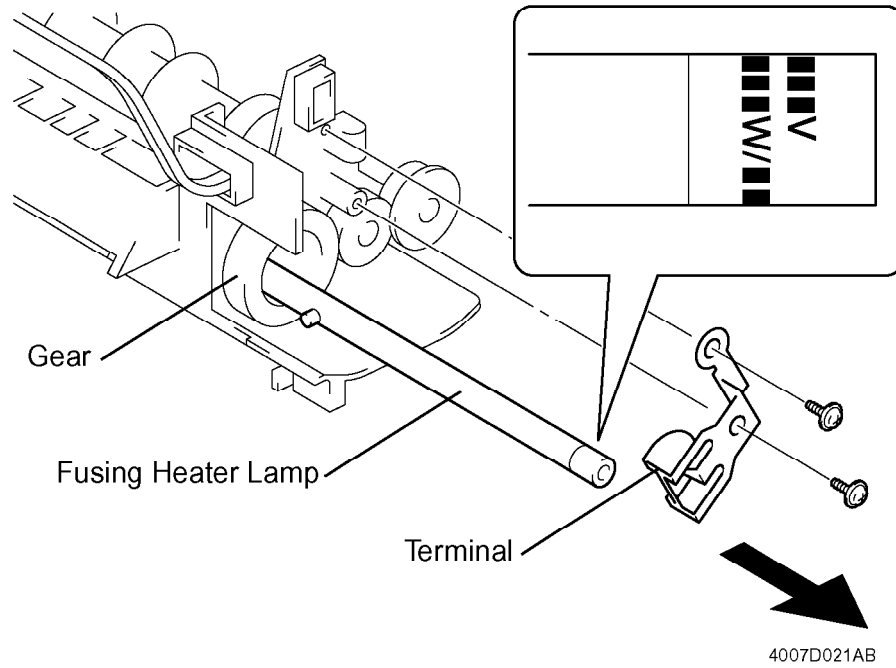
*During reinstallation, make sure that the pressure springs fit over the protrusions on the Lower Fusing Unit.*

---



## (2) Removal of the Fusing Heater Lamp

1. Terminal
2. Fusing Heater Lamp



---

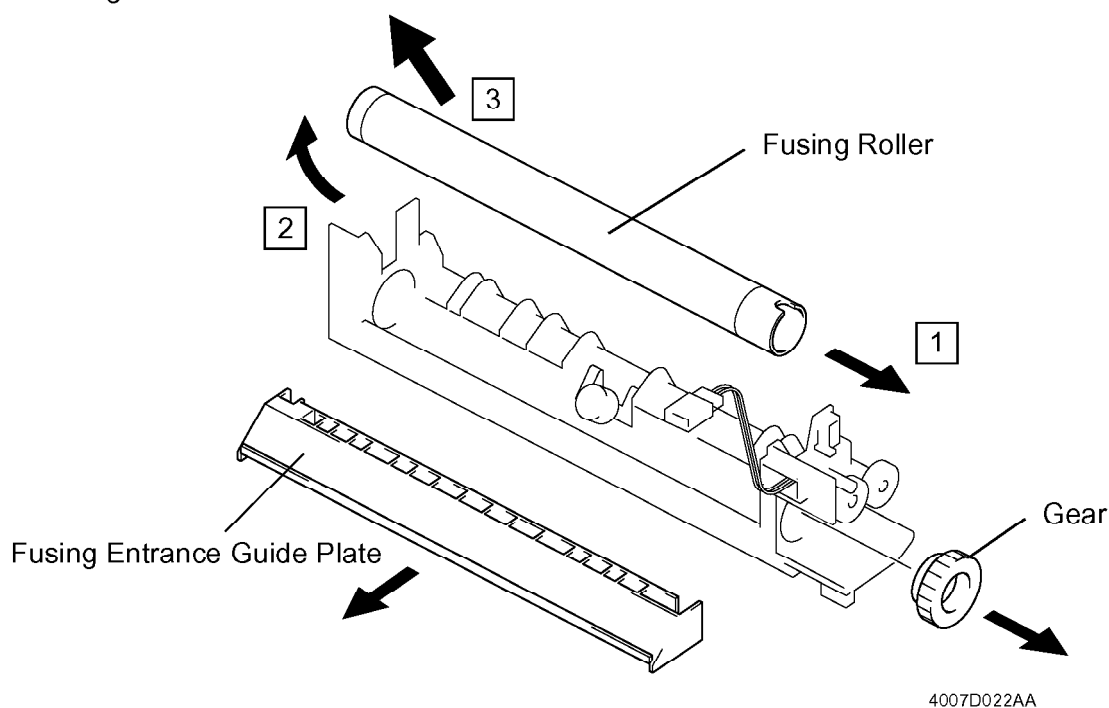
### **NOTE**

*When inserting the Fusing Heater Lamp, make sure that the end marked with the specifications is on the gear end.*

---

### (3) Removal of the Fusing Roller

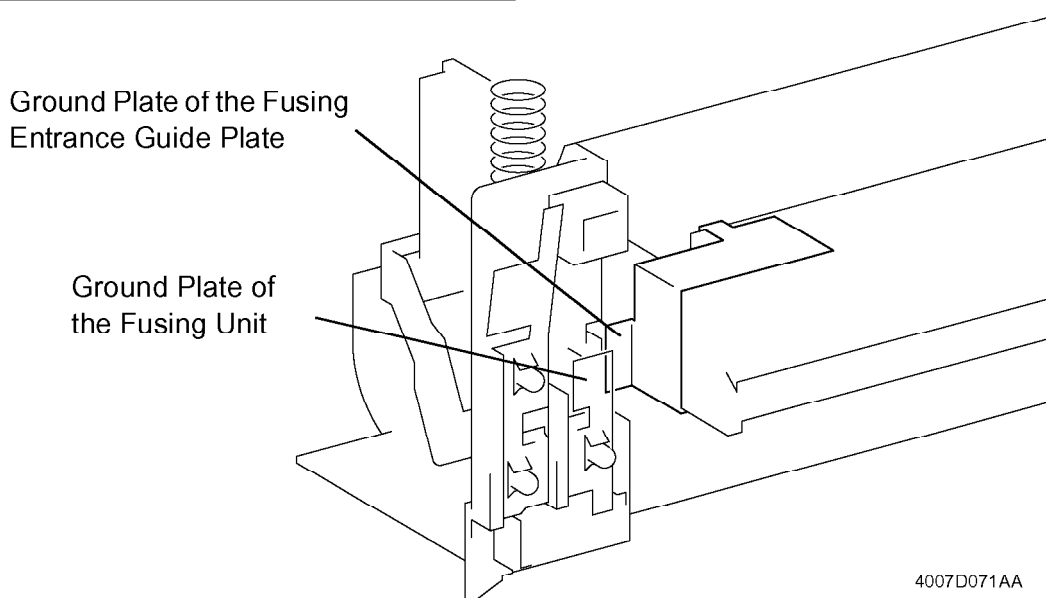
1. Gear
2. Fusing Roller



#### NOTES

- When mounting the Fusing Roller, take care not to allow the Paper Separator Fingers to damage the surface of the roller.
- When installing the gear, make sure that the protrusion on the inner side of the gear fits into the slit on the end of the Fusing Roller.
- When installing the Fusing Entrance Guide Plate, fit the ground plate of the Fusing Entrance Guide Plate inside the ground plate on the Fusing Unit side.

#### Where the Ground Plate is Mounted

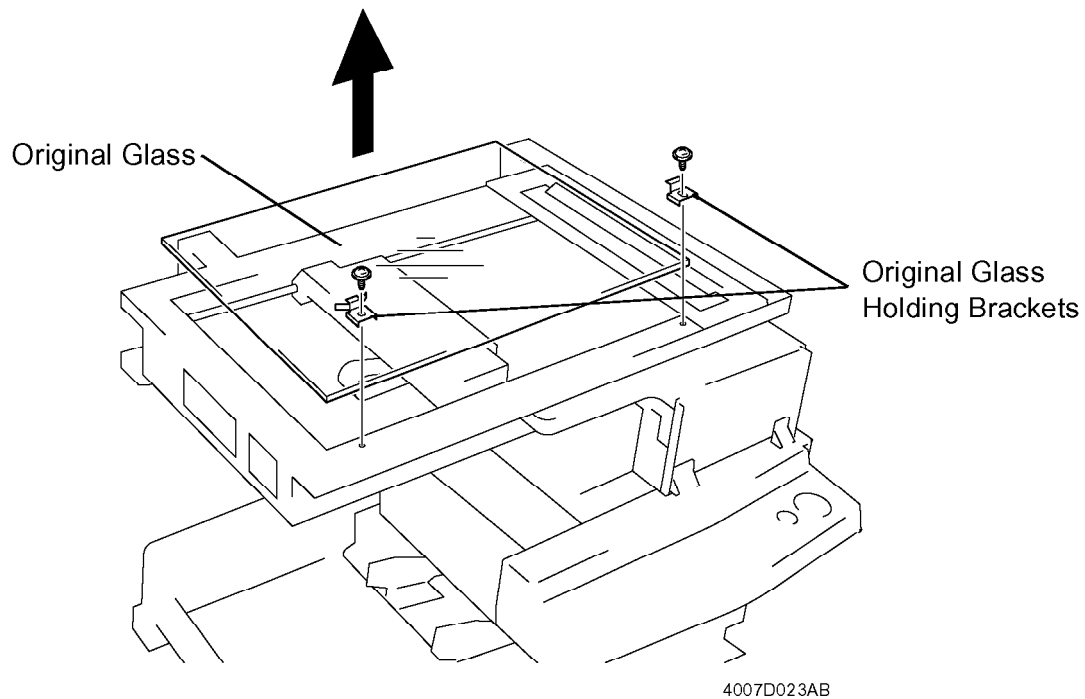


## 2-7. MISCELLANEOUS

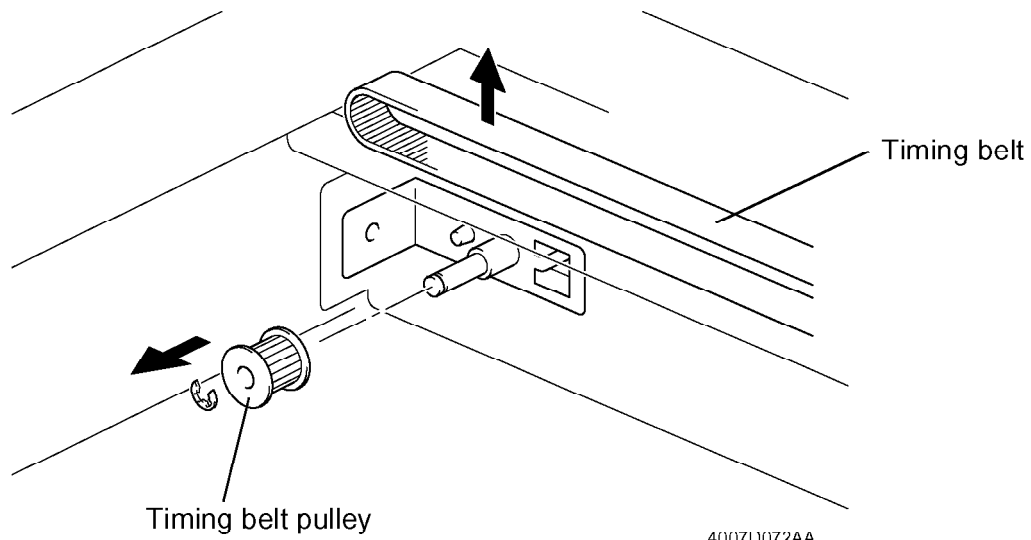
### (1) Removal of the Scanner and Timing Belt

Remove these parts after the Front Upper Cover, Front IR Cover, Left IR Cover, Rear IR Upper Cover, Rear Upper Cover, Rear Lower Cover, and Right IR Cover have all been removed.

1. Original Glass holding bracket
2. Original Glass

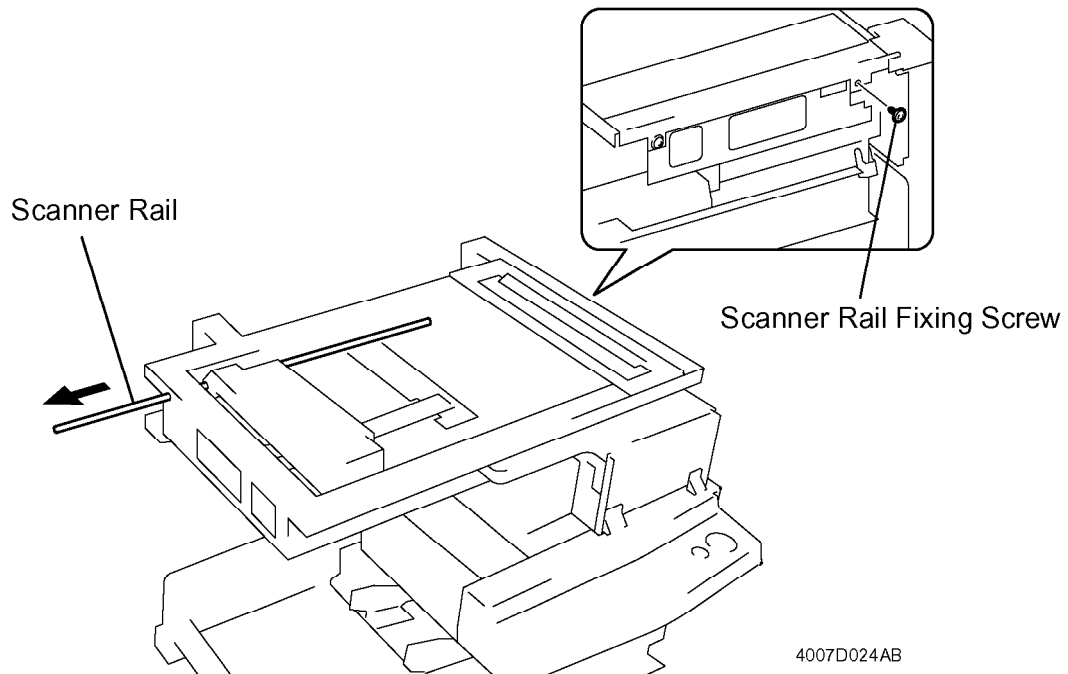


3. Timing belt pulley
4. Timing belt

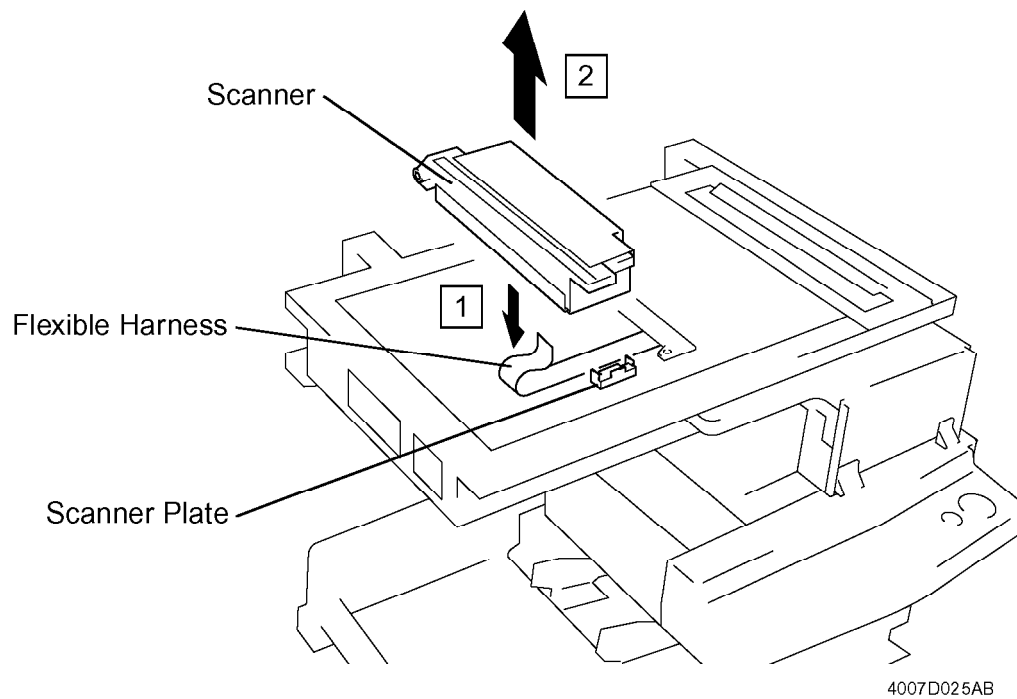




5. Scanner Rail fixing screw (on timing belt side)
6. Scanner Rail (on timing belt side)



7. Scanner plate
8. Flexible harness
9. Scanner



---

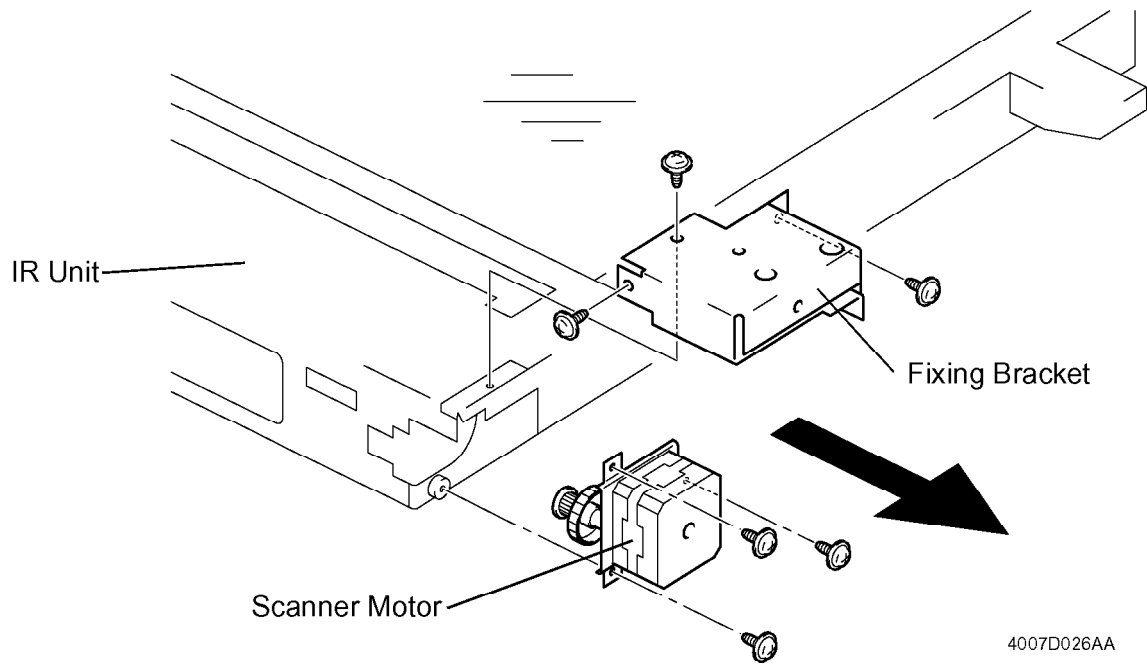
**NOTE**

*When installing the Scanner, always connect the flexible harness first.*

---

## (2) Removal of the Scanner Motor

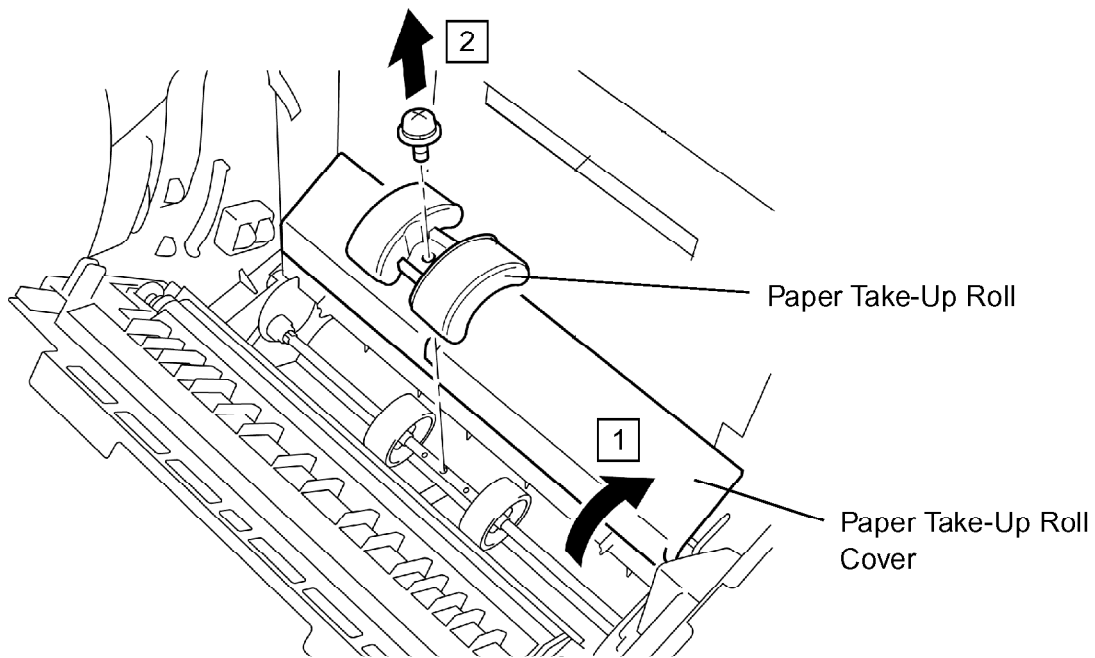
1. IR Unit
2. Fixing bracket
3. Scanner Motor



### (3) Removal of the Paper Take-Up Roll

Remove the Paper Take-Up Roll after the I/C has been taken out of the copier.

1. Paper Take-Up Roll



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---

#### **NOTE**

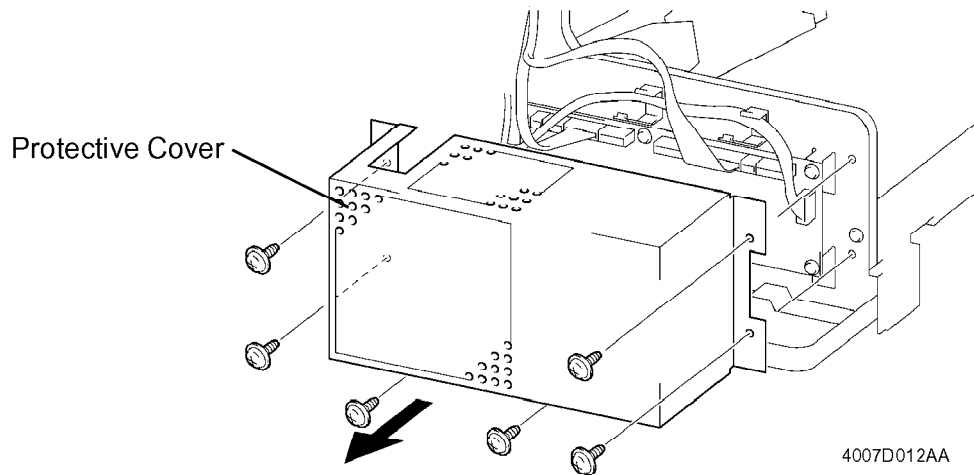
*When securing the Paper Take-Up Roll, make sure that the positioning pin on the back side of the roll fits into the hole in the shaft.*

---

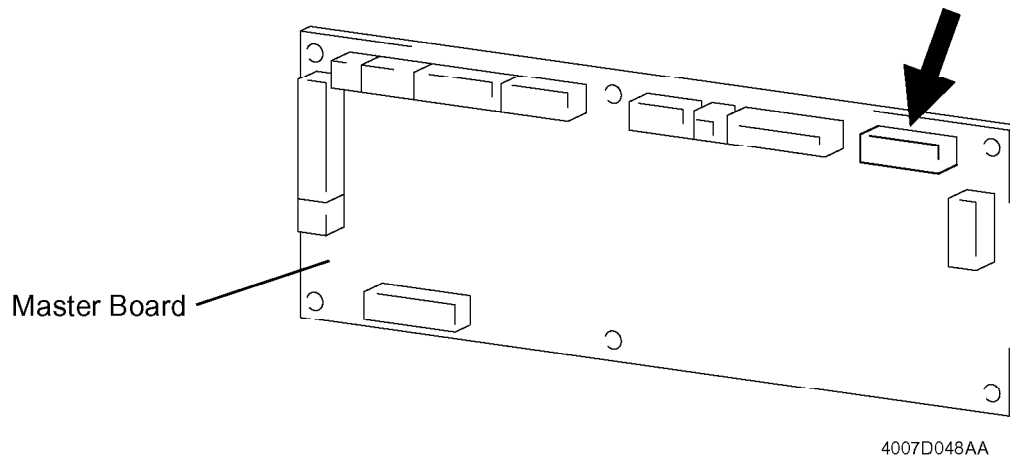
#### (4) Removal of the Paper Take-Up Solenoid

Remove the solenoid after the Front Lower Cover, Paper Tray, Manual Bypass Tray, Manual Bypass Tray Lower Cover, Rear Lower Cover, and Right Cover have all been removed.

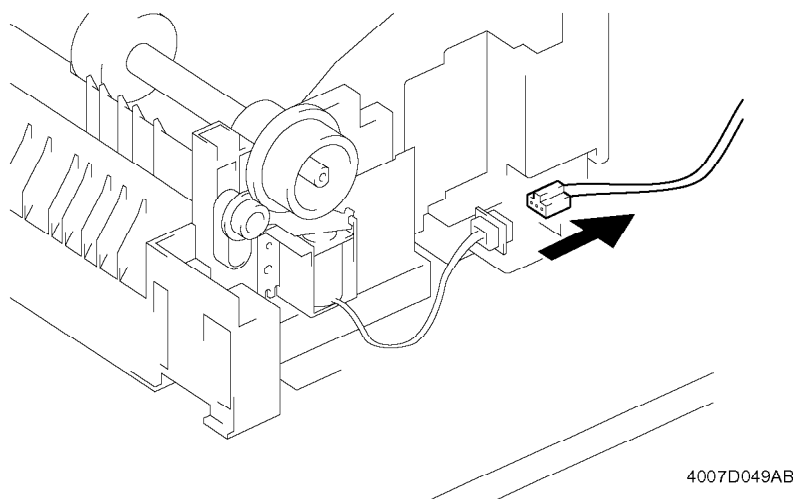
1. Protective cover



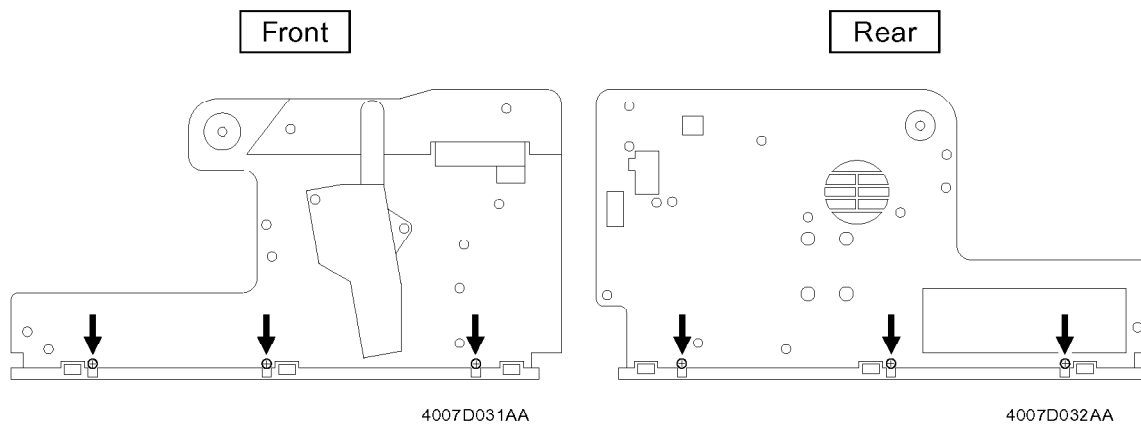
2. Print jack



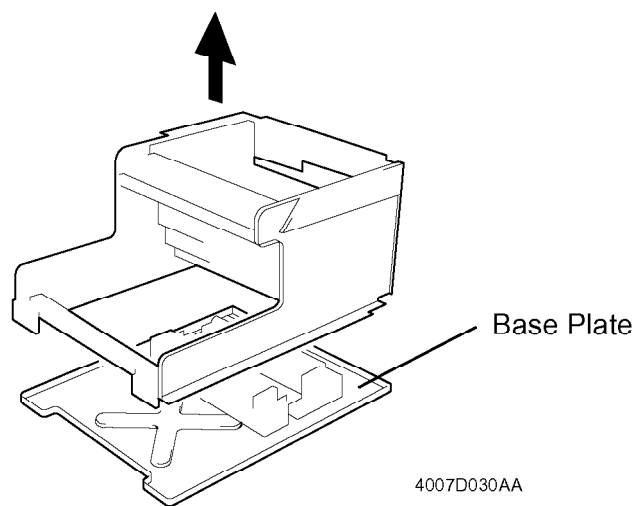
3. Paper Take-Up Solenoid hookup connector



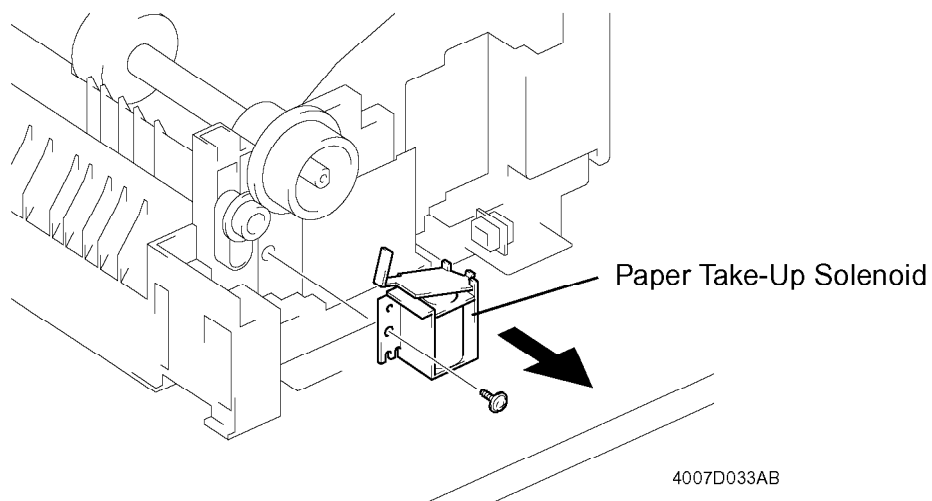
#### 4. Base plate fixing screws



#### 5. Base plate



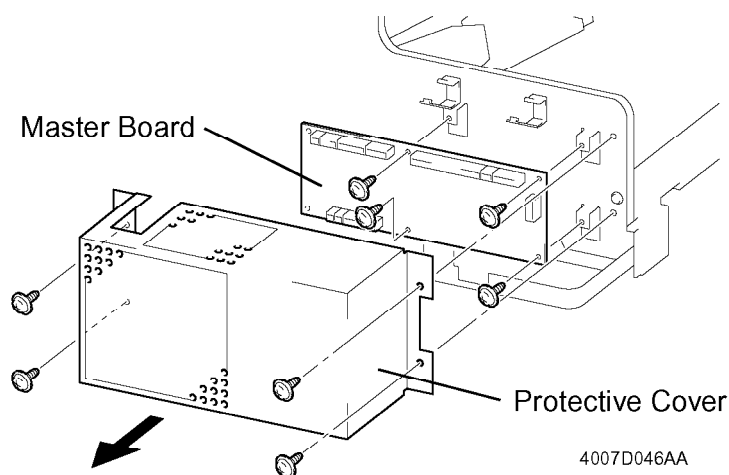
#### 6. Paper Take-Up Solenoid



### (5) Removal of the Main Motor and PH Section Cooling Fan Motor

Remove these parts after the upper half of the copier, and I/C has been removed.

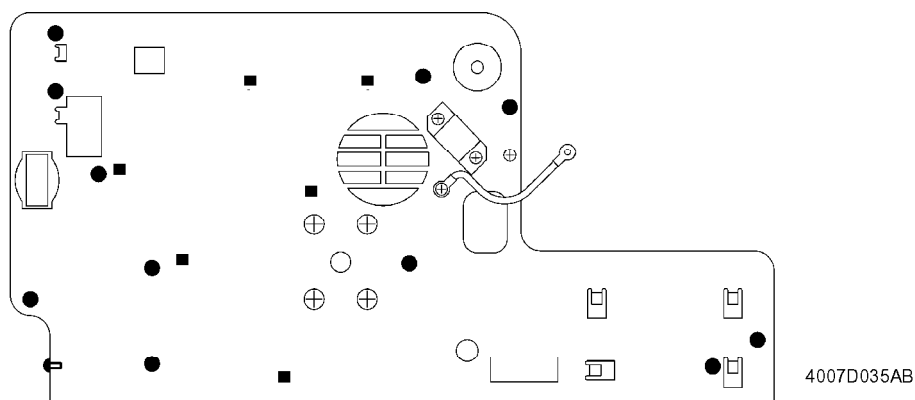
1. Protective cover
2. Master Board



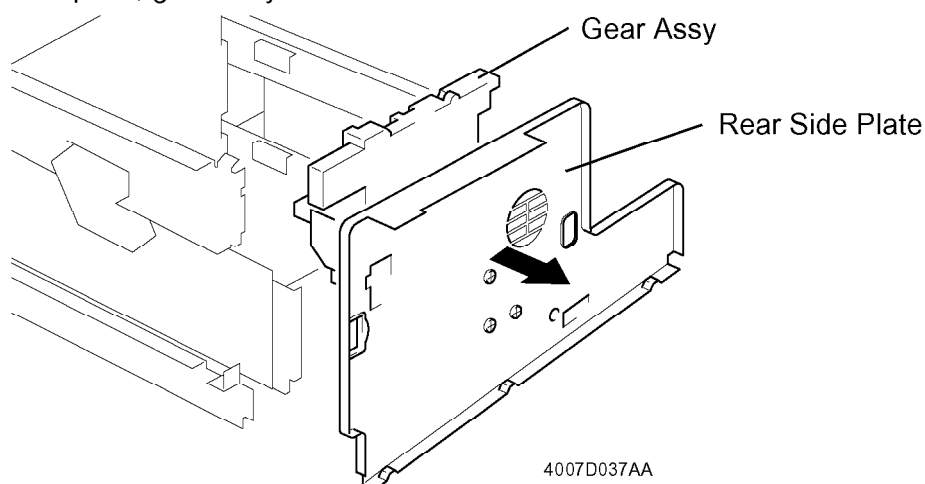
3. Base plate

 **D-27**

4. Rear side plate fixing screws (marked with black dots)
5. Gear Assy fixing screws (marked with black squares)



6. Rear side plate, gear assy



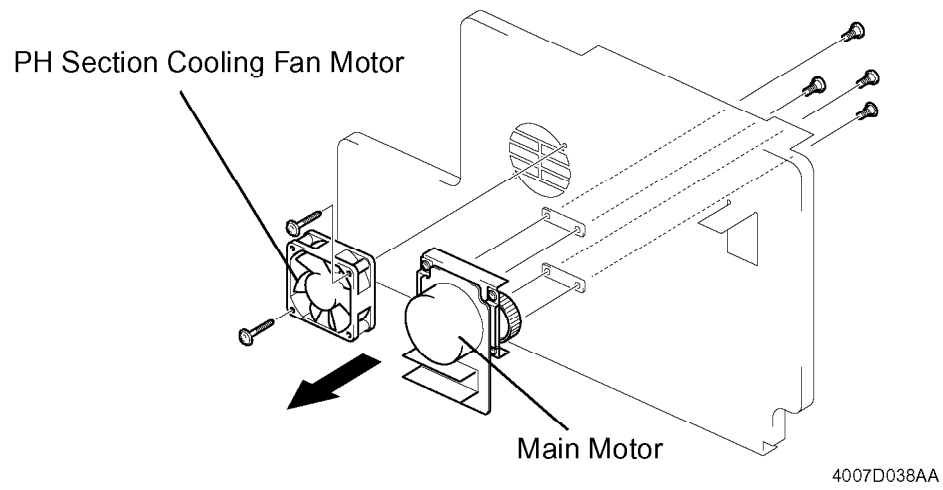
---

#### **NOTE**

*Install the rear side plate first, then the base plate.*







---

7. Main Motor, PH Section Cooling Fan Motor



### 3. ADJUSTMENT

#### 3-1. ADJUSTMENT REQUIREMENTS LIST

Adjustment Item	Requirements	Adjustment Point	Ref. Page
Registration (Paper Tray)		Control panel	
CD	_____	↑	 D-33
FD	$20 \pm 2.0$ mm	↑	 D-34
Zoom Ratios (Scanner)		↑	
CD	$100 \pm 1.0$ mm	↑	 D-35
FD	$200 \pm 2.0$ mm	↑	 D-36
Registration (Scanner)		↑	
CD	_____	↑	 D-37
FD	$20 \pm 2.0$ mm	↑	 D-38

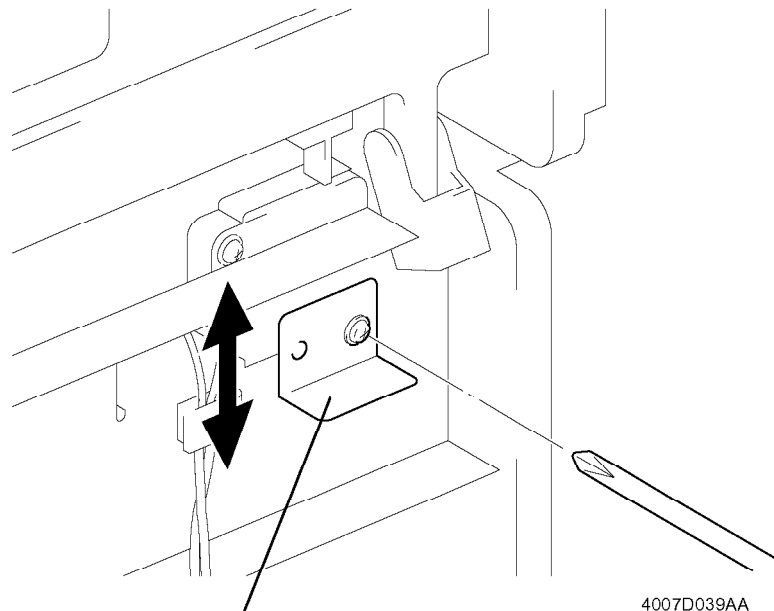


### 3-2. ADJUSTMENT OF UPPER UNIT INTERLOCK SWITCH S2

1. Release and swing up the upper half of the copier and remove the Right Cover.
2. Remove the Fusing Cover.
3. Loosen the screw on the Upper Unit Interlock Switch adjusting bracket and slide it downward until it is stops.
4. Swing down the upper half of the copier into its locked position.
5. Moving the Upper Unit Interlock Switch adjusting bracket upward, find the position at which a click of the switch is heard. Then tighten the screw to secure the adjusting bracket in that position.

[Check Method]

When the Power Switch is turned ON, the Exposure Lamp should turn ON.



Upper Unit Interlock Switch Adjusting Bracket

### 3-3. ELECTRICAL/IMAGE ADJUSTMENT

#### (1) Entering the Tech. Rep. Mode

Procedure:

Press the following keys in this order:

Clear/Stop → Exposure Control Lighter (<) → Clear/Stop → Exposure Control Darker (>)

#### (2) Entering the Adjust Mode

Procedure:

1. Enter the Tech. Rep. mode.

2. Press the following keys in this order:

1Key → 1Key → 1Key → Start key → Press the 1Key until the specific function is displayed.

#### (3) Producing a Test Pattern

---

##### **NOTE**

*A test pattern is used when making the following adjustments:*

- *CD registration adjustment (Paper Tray)*
  - *FD registration adjustment (Paper Tray)*
  - *Registration adjustment (Scanner)*
  - *Zoom ratio adjustment (Scanner)*
- 

Procedure

1. Enter the Tech. Rep. mode.

2. Press the following keys in this order to enter the function of "F5 Test Pattern 1":

1Key > 1Key > Start key > 1Key > 1Key > 1Key > 1Key

3. Press the Start key.

---

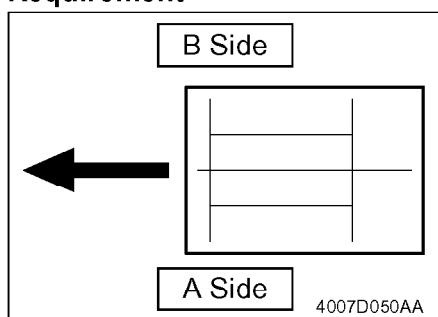
##### **NOTE**

*To exit the test pattern function, press the Clear/Stop key to go back to the Basic screen.*

---

#### (4) CD Registration Adjustment (Paper Tray)

##### Requirement



Requirement	Adjust Mode Function	Setting Range
	CD registration adjustment	43 to 57 (-3.5 to +3.5 mm)

##### NOTE

*This adjustment must be made whenever the PH Unit is replaced.*

##### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Fold the test pattern in half and make sure that the centerline on the test pattern is aligned with the crease. If it is not aligned with the crease, perform the following adjustment procedure.
3. Enter Adjust function A9.
4. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.5 mm).

If the centerline deviates on the B side, increase the setting value.

If the centerline deviates on the A side, decrease the setting value.

\* If one adjustment sequence does not bring the centerline into the required range, perform the sequence again.

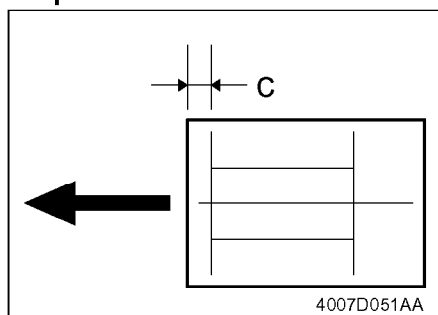
5. Press the Start key to validate the setting value.

##### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*

## (5) FD Registration Adjustment (Paper Tray)

### Requirement



Dimension C on the test pattern produced should fall within the range specified below.

Requirement	Adjust Mode Function	Setting Range
A4C 20 $\pm$ 2.0 mm	FD registration adjustment	43 to 57 (-3.5 to +3.5 mm)

### NOTE

*This adjustment must be made whenever the PH Unit is replaced. Should be made after the CD registration adjustment (Paper Tray) has been completed.*

### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Make sure that dimension C on the test pattern falls within the specified range. If it falls outside the specified range, perform the following adjustment procedure.
3. Enter Adjust function AA.
4. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.5 mm).

If dimension C on the test pattern is longer than the specified range, decrease the setting value.

If dimension C on the test pattern is shorter than the specified range, increase the setting value.

\* If one adjustment sequence does not bring the dimension into the required range, perform the sequence again.

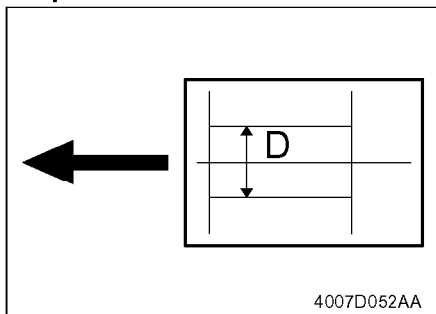
5. Press the Start key to validate the setting value.

### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*

## (6) CD Zoom Ratio Adjustment (Scanner)

### Requirement



Produce a test pattern after the CD and FD registration adjustments (Paper Tray) have been made. Place this test pattern on the Original Glass and make a copy. Dimension D on the copy of the test pattern should fall within the range specified below.

Zoom Ratio	Requirement	Adjust Mode Function	Setting Range
Full size (100%)	100 ±1.0 mm	CD zoom ratio adjustment	45 to 55 (Reduced ↔ Enlarged)

### NOTE

*This adjustment must be made whenever the Scanner is replaced. Should be made after the CD and FD registration adjustments (Paper Tray) have been completed.*

### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Place the test pattern produced on the Original Glass and make a copy.
3. Make sure that dimension D on the copy of the test pattern falls within the specified range.  
Calculation formula:  $(1 - \text{Dimension D on test pattern} \div \text{Dimension D on copy}) \times 100$   
If dimension D falls outside the specified range, perform the following adjustment procedure.
4. Enter Adjust function A1.
5. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.4%).

If dimension D on the copy of the test pattern is longer than the specified range, decrease the setting value.

If dimension D on the copy of the test pattern is shorter than the specified range, increase the setting value.

\* If one adjustment sequence does not bring the dimension into the required range, perform the sequence again.

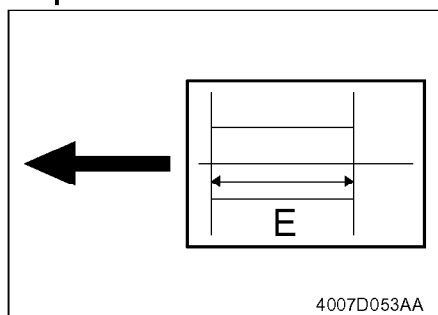
6. Press the Start key to validate the setting value.

### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*

## (7) FD Zoom Ratio Adjustment (Scanner)

### Requirement



Produce a test pattern after the CD and FD registration adjustments (Paper Tray) have been made. Place this test pattern on the Original Glass and make a copy. Dimension E on the copy of the test pattern should fall within the range specified below.

Zoom Ratio	Requirement	Adjust Mode Function	Setting Range
Full size (100%)	200 ±2.0 mm	FD zoom ratio adjustment	45 to 55 (Reduced ↔ Enlarged)

### NOTE

*This adjustment must be made whenever the Scanner is replaced. Should be made after the CD and FD registration adjustments (Paper Tray) have been completed.*

### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Place the test pattern produced on the Original Glass and make a copy.
3. Make sure that dimension E on the copy of the test pattern falls within the specified range.  
Calculation formula:  $(1 - \text{Dimension E on test pattern} \div \text{Dimension E on copy}) \times 100$   
If dimension E falls outside the specified range, perform the following adjustment procedure.
4. Enter Adjust function A2.
5. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.4%).

If dimension E on the copy of the test pattern is longer than the specified range, decrease the setting value.

If dimension E on the copy of the test pattern is shorter than the specified range, increase the setting value.

\* If one adjustment sequence does not bring the dimension into the required range, perform the sequence again.

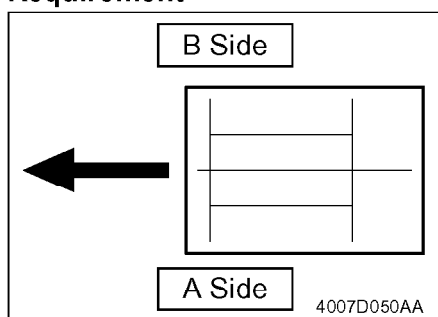
6. Press the Start key to validate the setting value.

### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*

## (8) CD Registration Adjustment (Scanner)

### Requirement



Requirement	Adjust Mode Function	Setting Range
	CD registration adjustment	40 to 60 (-5.0 to +5.0 mm)

### NOTE

*This adjustment must be made whenever the Scanner is replaced. Should be made after the CD and FD registration adjustments (Paper Tray), and CD zoom ratio adjustment (Scanner) have been completed.*

### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Place the test pattern produced on the Original Glass and make a copy.
3. Fold the test pattern in half and check that the centerline on the test pattern is aligned with the crease. If it is not aligned with the crease, perform the following adjustment procedure.
4. Enter Adjust function A3.
5. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.5 mm).

If the centerline deviates on the B side, increase the setting value.

If the centerline deviates on the A side, decrease the setting value.

\* If one adjustment sequence does not bring the centerline into the required range, perform the sequence again.

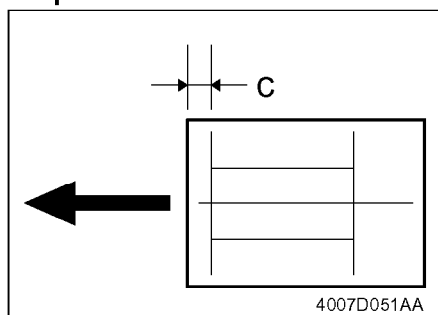
6. Press the Start key to validate the setting value.

### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*

## (9) FD Registration Adjustment (Scanner)

### Requirement



Produce a test pattern after the CD and FD registration adjustments (Paper Tray) have been made. Place this test pattern on the Original Glass and make a copy. Dimension C on the copy of the test pattern should fall within the range specified below.

Requirement	Adjust Mode Function	Setting Range
20 ±2.0 mm	FD registration adjustment	40 to 60 (-5.0 to +5.0 mm)

### NOTE

*This adjustment must be made whenever the Scanner is replaced. Should be made after the CD and FD registration adjustments (Paper Tray), and FD zoom ratio adjustment (Scanner) have been completed.*

### Procedure

1. Produce a test pattern (F5: Test Pattern 1).
2. Place the test pattern produced on the Original Glass and make a copy.
3. Make sure that dimension C on the copy of the test pattern falls within the specified range. If it falls outside the specified range, perform the following adjustment procedure.
4. Enter Adjust function A4.
5. Change the setting value using the 1Key or 10Key as necessary (1 step equivalent to 0.5 mm).

If dimension C on the copy of the test pattern is longer than the specified range, decrease the setting value.

If dimension C on the copy of the test pattern is shorter than the specified range, increase the setting value.

\* If one adjustment sequence does not bring the dimension into the required range, perform the sequence again.

6. Press the Start key to validate the setting value.

### NOTE

*If the Clear/Stop key is pressed to go back to the Basic screen without pressing the Start key, the setting will be restored to the original value.*



## 4. MISCELLANEOUS

### 4-1. TORSION BAR POSITION ADJUSTMENT

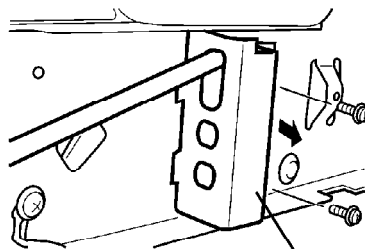
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**NOTE**

*When an Automatic Document Feeder or Fax Unit is mounted on the copier, the position of the torsion bar must be adjusted as detailed below.*

---

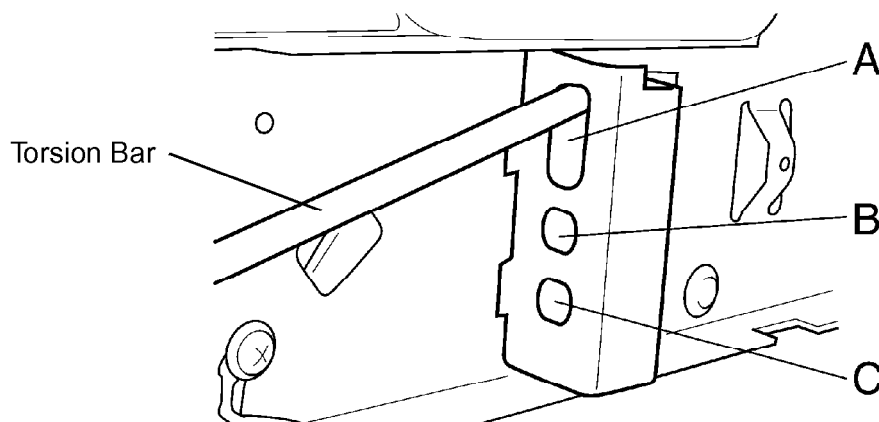
1. Remove the Front Upper Cover and control panel.
2. Release and swing up the upper half of the copier.
3. Remove the torsion bar attachment plate.



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Torsion Bar Attachment Plate

4. Change the position of the torsion bar in the attachment plate as necessary.



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Hole	Copier Configuration
A	Factory setting or when the Original Cover is mounted When the Fax Unit is mounted
B	When the Automatic Document Feeder is mounted
C	When both the Automatic Document Feeder and Fax Unit are mounted

5. Secure the torsion bar attachment plate into position.

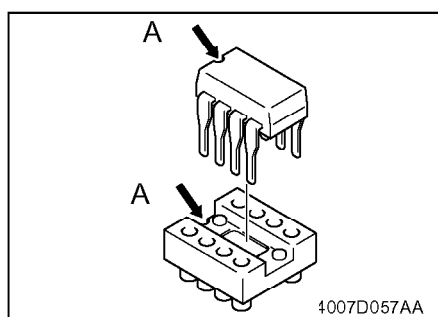
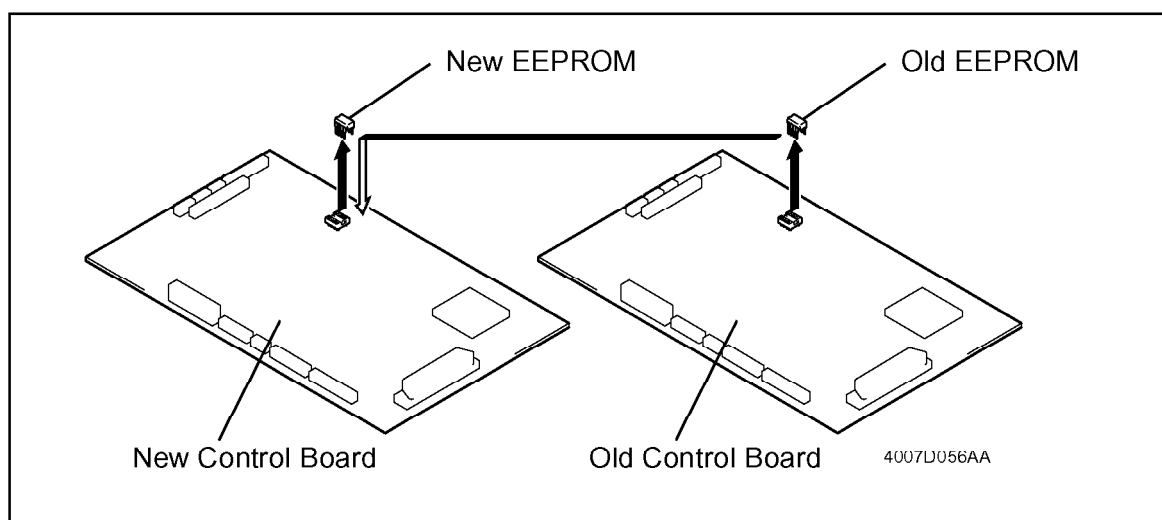
## 4-2. REMOUNTING EEPROM (U21)

---

### NOTES

- If the Control Board has been replaced, be sure to remount EEPROM (U21) from the old to new Control Board.
  - If the Control Board has been replaced and EEPROM (U21) has not been remounted, be sure to replace the I/C with a new one. EEPROM contains no data in this case, so make settings and readjustments as necessary.
- 

1. Remove the Control Board.
2. Remove EEPROM (U21) from the new Control Board.
3. Remove EEPROM (U21) from the old Control Board and remount it onto the new Control Board.



---

### NOTE

*Note the alignment notch (A) on EEPROM (U21) when mounting the IC.*

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# SWITCHES ON PWBs, TECH. REP. SETTINGS

---



# CONTENTS

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# 1. CONTROL PANEL KEYS AND INDICATORS

## 1-1. Control Panel Keys

### 1. Start Key

- Press to start a copy cycle.

### 2. Clear/Stop Key

- Press to cancel a copy operation.
- Press to reset the Copies setting to "1".
- Press to return the zoom ratio setting to 100%.
- Press for three seconds to enable the total check function.

### 3. 1 Key

- Use to change the values for each setting.

### 4. 10 Key

- Use to change the values for each setting.

### 5. Copies/Function Key

- Use to change the Copies setting and the Function Mode settings.

### 6. Zoom Key

- Press to change the zoom ratio.
- Use to select the standard zoom ratio.

### 7. Exposure Control Key (Darker)

- Use to manually adjust the density of the document. Image will become darker by pressing this key.

### 8. Auto Exposure Mode Key

- Press to select either the Auto Exposure Mode, the Manual Exposure Mode or the Photo Mode.

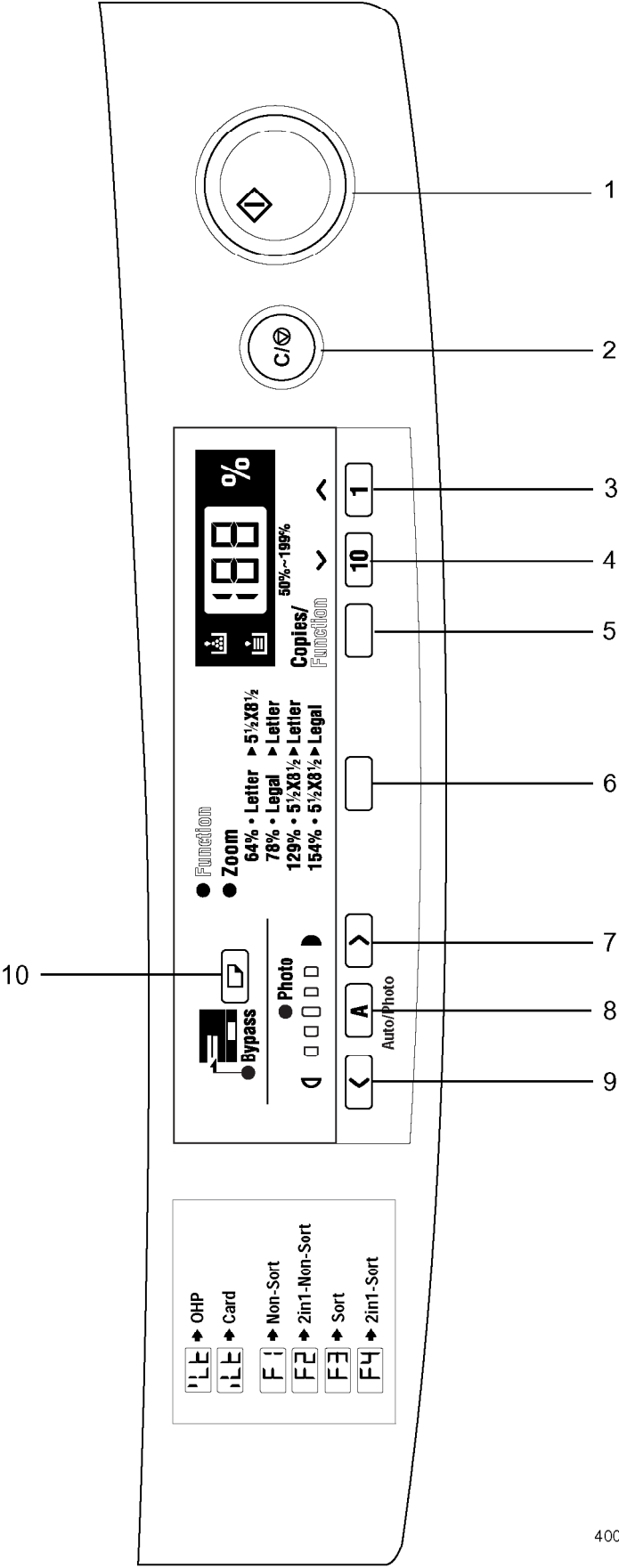
### 9. Exposure Control Key (Lighter)

- Use to manually adjust the density of the document. Image will become lighter by pressing this key.
- Press for three seconds enter the User's Choice mode.

### 10. Paper Select Key

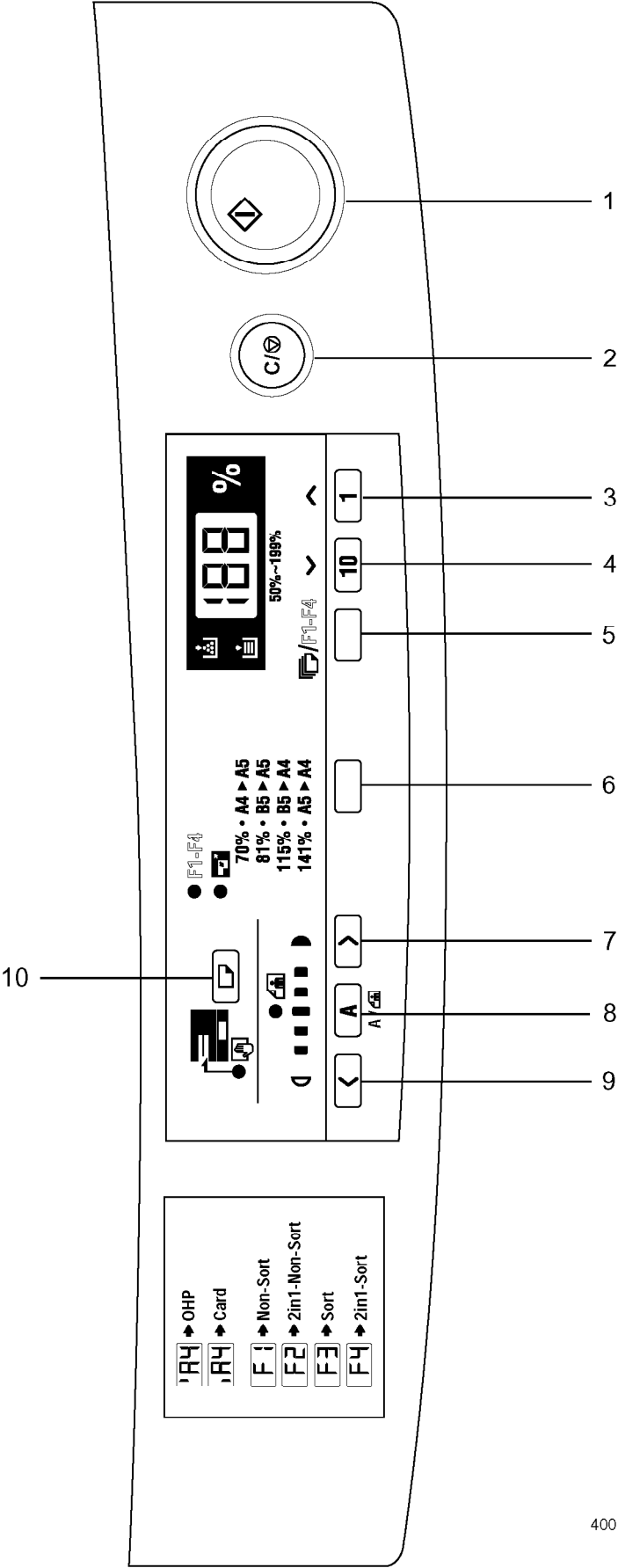
- Press to select the drawer that contains the desired paper size.

Inch Areas

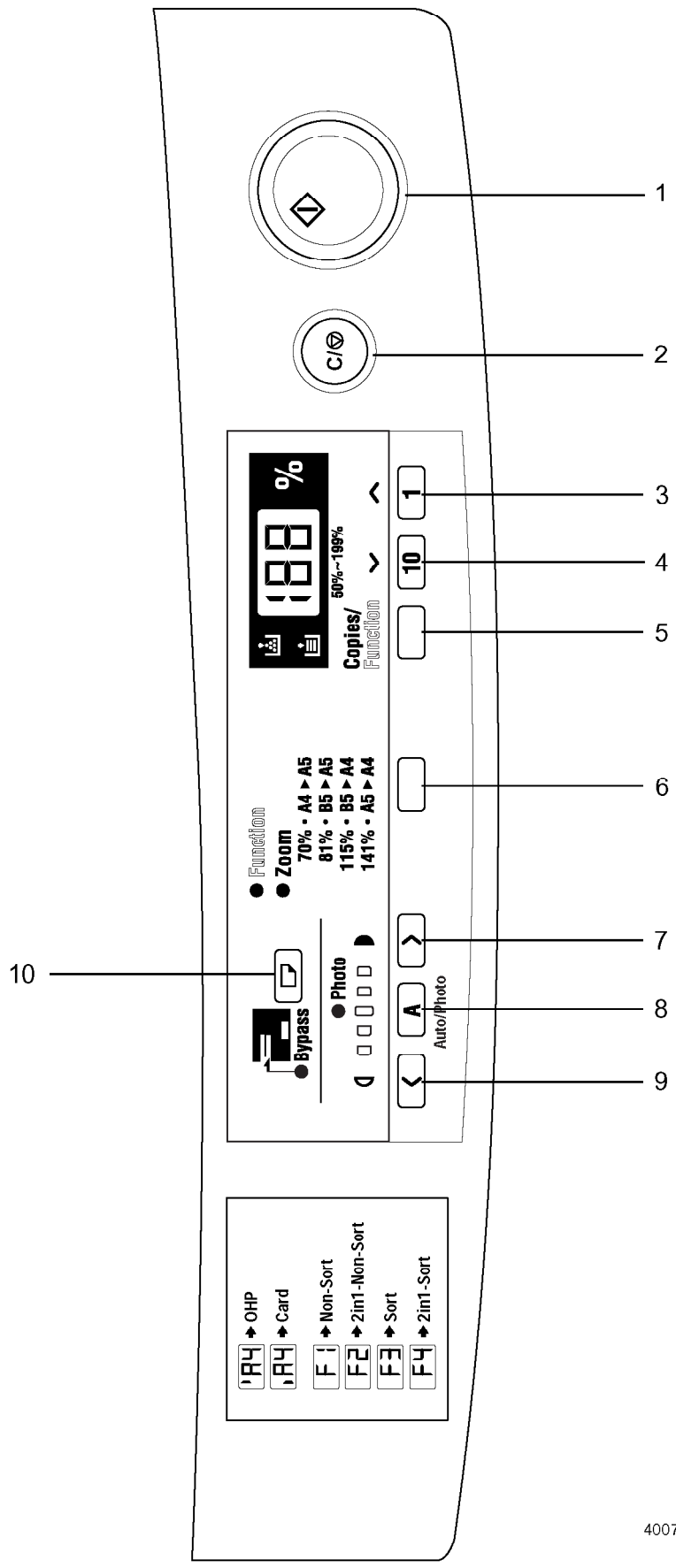


4007S001EA

Metric Areas



4007S002DA



4007S003CA



## 2. USER'S CHOICE MODE

- User's Choice Mode is used to make various settings according to the user's needs.

### 2-1. Functions Available from the User's Choice Mode

Code	Function
U1	Auto Panel Reset
U2	Sleep
U3	Disable Sleep
U4	Exposure Mode Priority/Photo Mode
U5	Auto Exposure Level Priority
U6	Manual Exposure Level Priority
U7	Paper Size Select

Code	Function
U8	Manual Feed Input Size
* U9	Density (Automatic Document Feeder)
* U0	Function
* UA	Tray Priority (for Copier mode)
* Ub	Image Density (for Printer mode)
* UC	Tray Priority (for Printer mode)

\* Functions of U9 to UC are available on the display only when the copier is equipped with the corresponding options as detailed below.

U9: Automatic Document Feeder (AF-8)

U0: Memory for Copier (16MB/32MB)

UA: Paper Feed Unit (PF-116)

Ub: Printer Controller (Pi1501)

UC: Paper Feed Unit (PF-116) and Printer Controller (Pi1501)

### 2-2. User's Choice Function Setting Procedure

<Setting Procedure>

1. On the copying mode screen, hold down the Exposure Control Lighter < key for about 3 sec. or more.
2. Using the 10Key and 1Key, select the appropriate choice code.
3. Press the Start key to show the current setting.
4. Using the 10Key and 1Key, select the appropriate choice data.
5. Press the Start key to validate the choice data entered.

<Exiting the Mode>

- Press the Clear/Stop key.

## 2-3. Settings in the User's Choice Mode

Choice Code.	Setting (The default is <b>Highlighted</b> ).																
U1	<p align="center">&lt;Auto panel Reset&gt;</p> <p>Select the time it takes the Auto Panel Reset function, which resets the panel settings when the set period of time elapses after a copy cycle has been completed or the last key operated, to be activated.</p> <table><tr><td>Data</td><td>Description</td><td>Data</td><td>Description</td></tr><tr><td>OF</td><td>Disabled</td><td>2</td><td>2min.</td></tr><tr><td>05</td><td>30sec.</td><td>3</td><td>3min.</td></tr><tr><td><b>1</b></td><td>1min.</td><td>4</td><td>4min.</td></tr></table>	Data	Description	Data	Description	OF	Disabled	2	2min.	05	30sec.	3	3min.	<b>1</b>	1min.	4	4min.
Data	Description	Data	Description														
OF	Disabled	2	2min.														
05	30sec.	3	3min.														
<b>1</b>	1min.	4	4min.														
U2	<p align="center">&lt;Sleep&gt;</p> <p>Set the time it takes the copier to enter the Power Save mode after the copy cycle has been completed or the last key operated.</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"><li>• The choice data "OF" may be selected when "Enabled" is selected in "U3, Disable Sleep."</li></ul> <table><tr><td>Data</td><td>OF</td><td>1..... <b>15</b> ..... 120</td></tr><tr><td>Description</td><td>Disabled</td><td>The data value is the time in min.</td></tr></table>	Data	OF	1..... <b>15</b> ..... 120	Description	Disabled	The data value is the time in min.										
Data	OF	1..... <b>15</b> ..... 120															
Description	Disabled	The data value is the time in min.															
U3	<p align="center">&lt;Disable Sleep&gt;</p> <p>Select whether to enable the "OF" setting of Sleep.</p> <table><tr><td>Data</td><td><b>1</b></td><td>2</td></tr><tr><td>Description</td><td>Disabled</td><td>Enabled</td></tr></table>	Data	<b>1</b>	2	Description	Disabled	Enabled										
Data	<b>1</b>	2															
Description	Disabled	Enabled															
U4	<p align="center">&lt;Exposure Mode Priority/Photo Mode&gt;</p> <p>Select the priority exposure mode, either Text Auto Exposure, Text Manual Exposure, or Photo Manual Exposure.</p> <table><tr><td>Data</td><td>Description</td><td>Photo LED</td><td>Exposure Level LED</td></tr><tr><td><b>1</b></td><td>Text Auto exposure</td><td>OFF</td><td>All ON</td></tr><tr><td>2</td><td>Photo Manual exposure</td><td>ON</td><td>U6 default setting ON</td></tr><tr><td>3</td><td>Text Manual exposure</td><td>OFF</td><td>U6 default setting ON</td></tr></table>	Data	Description	Photo LED	Exposure Level LED	<b>1</b>	Text Auto exposure	OFF	All ON	2	Photo Manual exposure	ON	U6 default setting ON	3	Text Manual exposure	OFF	U6 default setting ON
Data	Description	Photo LED	Exposure Level LED														
<b>1</b>	Text Auto exposure	OFF	All ON														
2	Photo Manual exposure	ON	U6 default setting ON														
3	Text Manual exposure	OFF	U6 default setting ON														
U5	<p align="center">&lt;Auto Exposure Priority&gt;</p> <p>Select the priority exposure level in the Auto Exposure mode.</p> <table><tr><td>Data</td><td>0</td><td><b>1</b></td><td>2</td></tr><tr><td>Description</td><td>Darker</td><td>Standard</td><td>Lighter</td></tr></table>	Data	0	<b>1</b>	2	Description	Darker	Standard	Lighter								
Data	0	<b>1</b>	2														
Description	Darker	Standard	Lighter														

Choice Code	Setting (The default is <b>Highlighted</b> ).																								
U6	<p>&lt;Manual Exposure Level Priority&gt; Select the priority exposure level in the Manual Exposure mode.</p> <table><tr><th>Data</th><th>Description</th><th>Exposure Level LEDs</th></tr><tr><td>4</td><td rowspan="4">Darker ↑</td><td>Ⓛ □ □ □ □ ■ ▯</td></tr><tr><td>3</td><td>Ⓛ □ □ □ ■ ■ ▯</td></tr><tr><td>2</td><td>Ⓛ □ □ □ ■ □ ▯</td></tr><tr><td>1</td><td>Ⓛ □ □ ■ ■ □ ▯</td></tr><tr><td><b>0</b></td><td>Standard</td><td>Ⓛ □ □ ■ □ □ ▯</td></tr><tr><td>-1</td><td rowspan="4">↓ Lighter</td><td>Ⓛ □ ■ ■ □ □ ▯</td></tr><tr><td>-2</td><td>Ⓛ □ ■ □ □ □ ▯</td></tr><tr><td>-3</td><td>Ⓛ ■ ■ □ □ □ ▯</td></tr><tr><td>-4</td><td>Ⓛ ■ □ □ □ □ ▯</td></tr></table>	Data	Description	Exposure Level LEDs	4	Darker ↑	Ⓛ □ □ □ □ ■ ▯	3	Ⓛ □ □ □ ■ ■ ▯	2	Ⓛ □ □ □ ■ □ ▯	1	Ⓛ □ □ ■ ■ □ ▯	<b>0</b>	Standard	Ⓛ □ □ ■ □ □ ▯	-1	↓ Lighter	Ⓛ □ ■ ■ □ □ ▯	-2	Ⓛ □ ■ □ □ □ ▯	-3	Ⓛ ■ ■ □ □ □ ▯	-4	Ⓛ ■ □ □ □ □ ▯
Data	Description	Exposure Level LEDs																							
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-3		Ⓛ ■ ■ □ □ □ ▯																							
-4		Ⓛ ■ □ □ □ □ ▯																							
U7	<p>&lt;Paper Size Select&gt; Select the paper size of the Paper Tray.</p> <div><div>- Metric Areas -</div><table><tr><th>Data</th><th>Description</th></tr><tr><td><b>1</b></td><td>A4L</td></tr><tr><td>2</td><td>A5L</td></tr></table></div> <div><div>- Inch Areas -</div><table><tr><th>Data</th><th>Description</th></tr><tr><td><b>1</b></td><td>Letter L</td></tr><tr><td>2</td><td>Legal L</td></tr><tr><td>3</td><td>Half Letter L</td></tr></table></div>	Data	Description	<b>1</b>	A4L	2	A5L	Data	Description	<b>1</b>	Letter L	2	Legal L	3	Half Letter L										
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<b>1</b>	Letter L																								
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U8	<p>&lt;Manual Feed Input Size&gt; Set the size of the paper of a nonstandard size to be used for Manual Bypass feeding. After the CD size has been set, press the Start key, which allows the user to set the FD size.</p> <p>- CD Size -</p> <table><tr><th>Data</th><th>Description</th></tr><tr><td><b>13</b></td><td>128 - 134mm (5" - 5-1/4")</td></tr><tr><td>14</td><td>135 - 144mm (5-1/4" - 5-3/4")</td></tr><tr><td>15</td><td>145 - 154mm (5-3/4" - 6")</td></tr><tr><td>16</td><td>155 - 164mm (6" - 6-1/2")</td></tr><tr><td>17</td><td>165 - 174mm (6-1/2" - 6-3/4")</td></tr><tr><td>18</td><td>175 - 184mm (7" - 7-1/4")</td></tr><tr><td>19</td><td>185 - 194mm (7-1/4" - 7-3/4")</td></tr><tr><td>20</td><td>195 - 204mm (7-3/4" - 8")</td></tr><tr><td>21</td><td>205 - 216mm (8" - 8-1/4")</td></tr></table>	Data	Description	<b>13</b>	128 - 134mm (5" - 5-1/4")	14	135 - 144mm (5-1/4" - 5-3/4")	15	145 - 154mm (5-3/4" - 6")	16	155 - 164mm (6" - 6-1/2")	17	165 - 174mm (6-1/2" - 6-3/4")	18	175 - 184mm (7" - 7-1/4")	19	185 - 194mm (7-1/4" - 7-3/4")	20	195 - 204mm (7-3/4" - 8")	21	205 - 216mm (8" - 8-1/4")				
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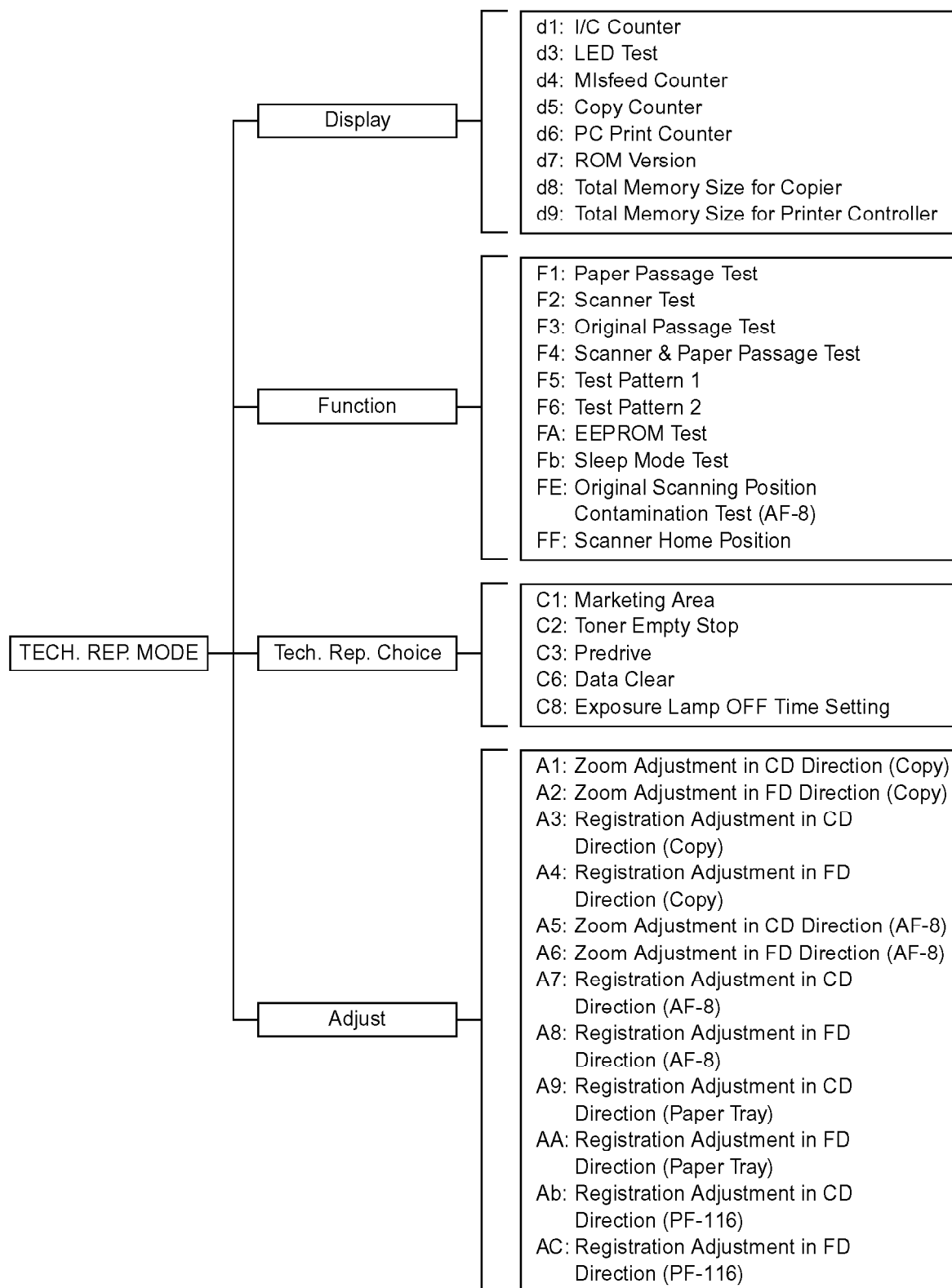
Choice Code	Setting (The default is <b>Highlighted</b> ).																																						
U8	<p>&lt;Manual Feed Input Size&gt;</p> <p>- FD Size -</p> <table border="1"> <thead> <tr> <th>Data</th><th>Description</th></tr> </thead> <tbody> <tr> <td><b>18</b></td><td>182 - 184mm (7-1/4")</td></tr> <tr> <td>19</td><td>185 - 194mm (7-1/4" - 7-3/4")</td></tr> <tr> <td>20</td><td>195 - 204mm (7-3/4" - 8")</td></tr> <tr> <td>21</td><td>205 - 214mm (8" - 8-1/2")</td></tr> <tr> <td>22</td><td>215 - 224mm (8-1/2" - 8-3/4")</td></tr> <tr> <td>23</td><td>225 - 234mm (8-3/4" - 9-1/4")</td></tr> <tr> <td>24</td><td>235 - 244mm (9-1/4" - 9-1/2")</td></tr> <tr> <td>25</td><td>245 - 254mm (9-3/4" - 10")</td></tr> <tr> <td>26</td><td>255 - 264mm (10" - 10-1/2")</td></tr> <tr> <td>27</td><td>265 - 274mm (10-1/2" - 10-3/4")</td></tr> <tr> <td>28</td><td>275 - 284mm (10-3/4" - 11-1/4")</td></tr> <tr> <td>29</td><td>285 - 294mm (11-1/4" - 11-1/2")</td></tr> <tr> <td>30</td><td>295 - 304mm (11-1/2" - 12")</td></tr> <tr> <td>31</td><td>305 - 314mm (12" - 12-1/4")</td></tr> <tr> <td>32</td><td>315 - 324mm (12-1/2" - 12-3/4")</td></tr> <tr> <td>33</td><td>325 - 334mm (12-3/4" - 13-1/4")</td></tr> <tr> <td>34</td><td>335 - 344mm (13-1/4" - 13-1/2")</td></tr> <tr> <td>35</td><td>345 - 356mm (13-1/2" - 13-3/4")</td></tr> </tbody> </table>	Data	Description	<b>18</b>	182 - 184mm (7-1/4")	19	185 - 194mm (7-1/4" - 7-3/4")	20	195 - 204mm (7-3/4" - 8")	21	205 - 214mm (8" - 8-1/2")	22	215 - 224mm (8-1/2" - 8-3/4")	23	225 - 234mm (8-3/4" - 9-1/4")	24	235 - 244mm (9-1/4" - 9-1/2")	25	245 - 254mm (9-3/4" - 10")	26	255 - 264mm (10" - 10-1/2")	27	265 - 274mm (10-1/2" - 10-3/4")	28	275 - 284mm (10-3/4" - 11-1/4")	29	285 - 294mm (11-1/4" - 11-1/2")	30	295 - 304mm (11-1/2" - 12")	31	305 - 314mm (12" - 12-1/4")	32	315 - 324mm (12-1/2" - 12-3/4")	33	325 - 334mm (12-3/4" - 13-1/4")	34	335 - 344mm (13-1/4" - 13-1/2")	35	345 - 356mm (13-1/2" - 13-3/4")
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U9	<p>&lt;Density (Automatic Document Feeder)&gt;</p> <p>Select the copy image density level when the copier is equipped with an Automatic Document Feeder.</p> <table border="1"> <thead> <tr> <th>Data</th><th>Description</th></tr> </thead> <tbody> <tr> <td><b>1</b></td><td>When the standard original (text original) is used.</td></tr> <tr> <td>2</td><td>For sharper reproduction of a faint original.</td></tr> </tbody> </table>	Data	Description	<b>1</b>	When the standard original (text original) is used.	2	For sharper reproduction of a faint original.																																
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Choice Code	Setting (The default is <b>Highlighted</b> ).																
U0	<p>&lt;Function&gt; Select the priority Function mode.</p> <p><b>NOTES:</b></p> <ul style="list-style-type: none"><li>If the copier is not equipped with an Automatic Document Feeder, choice data of F1 and F2 only are available.</li><li>If the copier is equipped with an Automatic Document Feeder, all of the following choice data are available.</li></ul> <table><tr><td>Data</td><td>Description</td><td>Data</td><td>Description</td></tr><tr><td>F1</td><td>Non-Sort</td><td><b>F1</b></td><td>Sort</td></tr><tr><td>F2</td><td>2in1 Non-Sort</td><td>F4</td><td>2in1 Sort</td></tr></table> <p>* The default setting is “F1” if the copier is not equipped with an Automatic Document Feeder.</p>	Data	Description	Data	Description	F1	Non-Sort	<b>F1</b>	Sort	F2	2in1 Non-Sort	F4	2in1 Sort				
Data	Description	Data	Description														
F1	Non-Sort	<b>F1</b>	Sort														
F2	2in1 Non-Sort	F4	2in1 Sort														
UA	<p>&lt;Tray Priority (for Copier mode)&gt; Select the priority paper source selected when the copier is turned ON.</p> <table><tr><td>Data</td><td>Description</td></tr><tr><td><b>1</b></td><td>Paper Tray</td></tr><tr><td>2</td><td>Paper Feed Unit (PF-116)</td></tr><tr><td>3</td><td>Paper Tray + Auto Tray Switching</td></tr><tr><td>4</td><td>Paper Feed Unit (PF-116) + Auto Tray Switching</td></tr></table>	Data	Description	<b>1</b>	Paper Tray	2	Paper Feed Unit (PF-116)	3	Paper Tray + Auto Tray Switching	4	Paper Feed Unit (PF-116) + Auto Tray Switching						
Data	Description																
<b>1</b>	Paper Tray																
2	Paper Feed Unit (PF-116)																
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4	Paper Feed Unit (PF-116) + Auto Tray Switching																
Ub	<p>&lt;Image Density (for Printer mode)&gt; Select the image density level of printer outputs.</p> <table><tr><td>Data</td><td>3</td><td>2</td><td>1</td><td><b>0</b></td><td>-1</td><td>-2</td><td>-3</td></tr><tr><td>Description</td><td colspan="7">Darker ←———— Standard —————→ Lighter</td></tr></table>	Data	3	2	1	<b>0</b>	-1	-2	-3	Description	Darker ←———— Standard —————→ Lighter						
Data	3	2	1	<b>0</b>	-1	-2	-3										
Description	Darker ←———— Standard —————→ Lighter																
UC	<p>&lt;Tray Priority (for Printer mode)&gt; Select the priority paper source for printer outputs.</p> <table><tr><td>Data</td><td>Description</td></tr><tr><td><b>1</b></td><td>Auto selection</td></tr><tr><td>2</td><td>Paper Tray</td></tr><tr><td>3</td><td>Paper Feed Unit (PF-116)</td></tr></table>	Data	Description	<b>1</b>	Auto selection	2	Paper Tray	3	Paper Feed Unit (PF-116)								
Data	Description																
<b>1</b>	Auto selection																
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### 3. TECH. REP. MODE

- This mode is used by the Tech. Rep. to set, adjust, and/or program various service functions.

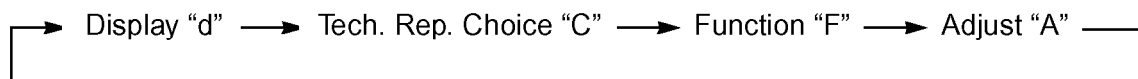
#### 3-1. Tech. Rep. Mode Function Tree



## 3-2. Tech. Rep. Mode Setting Procedure

<Setting Procedure>

1. Press the following keys in this order:  
Clear/Stop → Exposure Control Lighter (<) → Clear/Stop → Exposure Control Darker (>)
2. Press the 1Key until the desired Tech. Rep. sub-mode is reached. Sub-modes cycle as follows:



3. When the code that represents the desired sub-mode is displayed, press the Start key.

<Exiting the Mode>

- Press the Clear/Stop key.

### (1) Display

- Displays the count of each of different counters and makes some checks.
- The maximum value that can be displayed for the counter is 999,999.

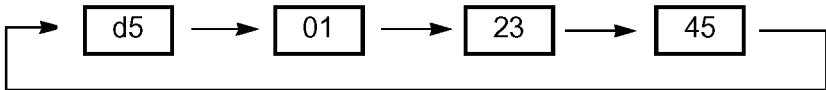
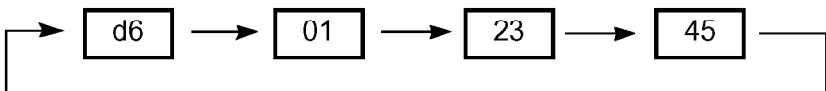
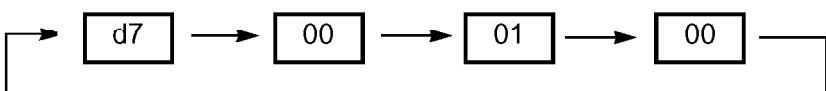
<Procedure>

- Press the 1Key as necessary until "d" appears on the display.
- Press the Start key to let the copier start the sequence.

<Exiting the Mode>

- Press the Clear/Stop key.

Code	Description
d1	<p>&lt;I/C Counter&gt;</p> <p>Displays the count of the I/C counter. Two digits each are displayed on the display, cycling through all digits of the count as detailed below. E.g.: 1234</p> <pre> graph LR     A[d1] --&gt; B[00]     B --&gt; C[12]     C --&gt; D[34]     D --&gt; A           </pre>
d3	<p>&lt;LED Test&gt;</p> <p>Turns ON and flashes OFF and ON all LEDs on the control panel to check for correct operation.</p>
d4	<p>&lt;Misfeed Counter&gt;</p> <p>Displays the count of the misfeed counter. Two digits each are displayed on the display, cycling through all digits of the count as detailed below. E.g.: 12</p> <pre> graph LR     A[d4] --&gt; B[00]     B --&gt; C[00]     C --&gt; D[12]     D --&gt; A           </pre>

Code	Description								
d5	<p align="center">&lt;Copy Counter&gt;</p> <p>Displays the count of the copy counter. Two digits each are displayed on the display, cycling through all digits of the count as detailed below. E.g.: 12345</p> <div></div>								
d6	<p align="center">&lt;PC Print Counter&gt;</p> <p>Displays the count of the PC print counter. Two digits each are displayed on the display, cycling through all digits of the count as detailed below. E.g.: 12345</p> <div></div>								
d7	<p align="center">&lt;ROM Version&gt;</p> <p>Displays the ROM version. Two digits each are displayed on the display, cycling through all digits of the ROM version number as detailed below. E.g.: 1.00</p> <div></div>								
d8	<p align="center">&lt;Total Memory Size for Copier&gt;</p> <p>Displays the capacity of the copier memory.</p> <table><tr><td>Display</td><td>08</td><td>24</td><td>40</td></tr><tr><td>Capacity (MB)</td><td>0</td><td>16</td><td>32</td></tr></table>	Display	08	24	40	Capacity (MB)	0	16	32
Display	08	24	40						
Capacity (MB)	0	16	32						
d9	<p align="center">&lt;Total Memory Size for Printer Controller&gt;</p> <p>Displays the capacity of the printer controller memory.</p> <table><tr><td>Display</td><td>08</td><td>16</td><td>32</td></tr><tr><td>Capacity (MB)</td><td>0</td><td>16</td><td>32</td></tr></table>	Display	08	16	32	Capacity (MB)	0	16	32
Display	08	16	32						
Capacity (MB)	0	16	32						



## (2) Function

- Allows the Tech. Rep. to run paper passage and other tests.

### <Procedure>

1. Press the 1Key as necessary until "F" appears on the display.
2. Press the Start key to let the copier start the sequence.

### <Exiting the Mode>

- Press the Clear/Stop key.

Code	Description
F1	<p>&lt;Paper Passage Test&gt; Checks for correct paper passage.</p> <p>&lt;Procedure&gt;</p> <ol style="list-style-type: none"><li>1. Select the paper source before entering the Tech. Rep. mode (when the copier is equipped with a Paper Feed Unit).</li><li>2. Press the Start key to let the copier start the paper passage sequence.</li><li>3. Press the Clear/Stop key to stop the sequence.</li></ol>
F2	<p>&lt;Scanner Test&gt; Checks to see if the Exposure Lamp turns ON properly and the Scanner operates correctly.</p> <p>&lt;Procedure&gt;</p> <ol style="list-style-type: none"><li>1. Press the Start key. This turns ON the Exposure Lamp and lets the Scanner make a scan motion.</li><li>2. Press the Clear/Stop key to stop the operation.</li></ol>
F3	<p>&lt;Original Passage Test&gt; Checks the Automatic Document Feeder for correct document passage.</p> <p>&lt;Procedure&gt;</p> <ol style="list-style-type: none"><li>1. Place paper on the Document Feed Tray.</li><li>2. Press the Start key to let the Automatic Document Feeder start the document take-up and feeding sequence.</li></ol>
F4	<p>&lt;Scanner &amp; Paper Passage Test&gt; Checks to see if the Scanner operates properly and paper is fed through the copier correctly.</p> <p>&lt;Procedure&gt;</p> <ol style="list-style-type: none"><li>1. Place the original on the Original Glass.</li><li>2. Press the Start key. This turns ON the Exposure Lamp and lets the Scanner make a scan motion.</li><li>3. A copy is produced.</li><li>4. Press the Clear/Stop key to stop the operation.</li></ol>
F5	<p>&lt;Test Pattern 1&gt; Produces a test pattern for adjusting the Paper Tray for correct alignment and registration in the main scanning and sub-scanning directions.</p>
F6	<p>&lt;Test Pattern 2&gt; Produces a halftone pattern.</p>

Code	Description						
FA	<p>&lt;EEPROM Test&gt;</p> <p>Checks EEPROM to determine if it is fully operational or not.</p>						
	<table><tr><td>Display</td><td>00</td><td>FF</td></tr><tr><td>Description</td><td>OK</td><td>NG</td></tr></table>	Display	00	FF	Description	OK	NG
	Display	00	FF				
Description	OK	NG					
Fb	<p>&lt;Sleep Mode&gt;</p> <p>Carries out a test for Sleep function.</p>						
FE	<p>&lt;Original Scanning Position Contamination Test (AF-8)&gt;</p> <p>Checks the Automatic Document Feeder original scanning position (Original Glass) for contamination.</p>						
	<p>&lt;Procedure&gt;</p> <p>1. Place A4 blank paper on the original scanning part.</p> <p>2. Press the Start key to let the copier produce a copy.</p> <p>3. Check the copy for possible contamination.</p>						
FF	<p>&lt;Scanner Home Position&gt;</p> <p>Moves the Scanner to its home position.</p> <p>Used to lock the Scanner in position when the copier is to be moved.</p>						

### (3) Tech. Rep. Choice

- Allows the Tech. Rep. to make the settings for the various service functions.

#### <Procedure>

1. Press the 1Key as necessary to select the desired Tech. Rep. Choice code.
2. Press the Start key to validate the choice code.
3. Using the 10Key and 1Key, select the choice data.
4. Press the Start key to validate the choice data setting (C1 to C3).

#### <Exiting the Mode>

- Press the Clear/Stop key.

Choice Code	Setting (The default is <b>Highlighted</b> ).		
C1	<Marketing Area> Select the display options for paper sizes and fixed zoom ratios according to the applicable marketing areas.		
	Data	0	1
	Description	Metric areas	Inch areas
	Default: 0 (Metric areas)/1 (Inch areas)		
C2	<Toner Empty Stop> Select whether or not to inhibit the initiation of a new copy cycle after a toner-empty condition has been detected.		
	Data	<b>0</b>	1
	Description	Copying permitted	Copying inhibited
C3	<Predrive> Select whether or not to stop predrive of the Fusing Rollers when the Start key is pressed.		
	Data	<b>0</b>	1
	Description	Predrive disabled	Predrive enabled

Choice Code	Setting (The default is <b>Highlighted</b> ).																							
C6	<p style="text-align: center;">&lt;Data Clear&gt;</p> <p>Use to clear the counters and initialize the various types of setting data.</p> <p>&lt;Procedure&gt;</p> <ol style="list-style-type: none"><li>Using the 10Key and 1Key, select the desired function.</li><li>Press the Start key to validate the selected function (counter or setting data).</li><li>Turn OFF and ON the Power Switch. (This completes the clearing of the data.)</li></ol>																							
	<p><b>NOTES</b></p> <ul style="list-style-type: none"><li>• “9” or “A” can be selected when the Auto Exposure Mode key is pressed.</li><li>• “A” is selected when clearing all counters at once (C6-1 to -7).</li></ul>																							
	<table><tr><th>Data</th><th>Description</th><th>Data</th><th>Description</th></tr><tr><td>0</td><td>None</td><td>7</td><td>PM counter</td></tr><tr><td>1</td><td>I/C counter</td><td>8</td><td>Use's/Tech. Rep. Choice</td></tr><tr><td>4</td><td>Misfeed counter</td><td>9</td><td>Adjust</td></tr><tr><td>5</td><td>Copy counter</td><td>A</td><td>All counters</td></tr><tr><td>6</td><td>PC print counter</td><td></td><td></td></tr></table>	Data	Description	Data	Description	0	None	7	PM counter	1	I/C counter	8	Use's/Tech. Rep. Choice	4	Misfeed counter	9	Adjust	5	Copy counter	A	All counters	6	PC print counter	
Data	Description	Data	Description																					
0	None	7	PM counter																					
1	I/C counter	8	Use's/Tech. Rep. Choice																					
4	Misfeed counter	9	Adjust																					
5	Copy counter	A	All counters																					
6	PC print counter																							
C8	<p style="text-align: center;">&lt;Exposure Lamp OFF Time Setting&gt;</p> <p>Select the time it takes the Exposure Lamp to turn OFF after a copy cycle has been completed.</p> <table><tr><th>Data</th><td><b>0</b></td><td>1</td><td>2</td></tr><tr><th>Description</th><td>30 sec.</td><td>20 sec.</td><td>3 min.</td></tr></table>	Data	<b>0</b>	1	2	Description	30 sec.	20 sec.	3 min.															
Data	<b>0</b>	1	2																					
Description	30 sec.	20 sec.	3 min.																					

#### (4) Adjust

- Used for adjustments to be made before shipment at the factory.



















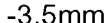

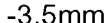

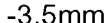



















##### <Procedure>

- Press the 1Key as necessary to select the desired Adjust code.
- Press the Start key to validate the Adjust code. At the same time, currently set data is displayed.
- Using the 10Key and 1Key, change the data.
- Press the Start key to validate the data setting.

##### <Exiting the Mode>

- Press the Clear/Stop key.

Adjust Code	Setting (The default is <b>Highlighted</b> ).				
A1	<p>&lt;Zoom Adjustment in CD Direction (Copy)&gt; Adjust the zoom ratio in the CD direction on the IR side (for copies).</p> <table border="1"> <tr> <td>Data</td><td>45..... <b>50</b> ..... 55</td></tr> <tr> <td>Description</td><td>Smaller ←————→ Greater</td></tr> </table>	Data	45..... <b>50</b> ..... 55	Description	Smaller ←————→ Greater
Data	45..... <b>50</b> ..... 55				
Description	Smaller ←————→ Greater				
A2	<p>&lt;Zoom Adjustment in FD Direction (Copy)&gt; Adjust the zoom ratio in the FD direction on the IR side (for copies).</p> <table border="1"> <tr> <td>Data</td><td>45..... <b>50</b> ..... 55</td></tr> <tr> <td>Description</td><td>Smaller ←————→ Greater</td></tr> </table>	Data	45..... <b>50</b> ..... 55	Description	Smaller ←————→ Greater
Data	45..... <b>50</b> ..... 55				
Description	Smaller ←————→ Greater				
A3	<p>&lt;Registration Adjustment in CD Direction (Copy)&gt; Adjust registration in the CD direction on the IR side (for copies).</p> <table border="1"> <tr> <td>Data</td><td>40..... <b>50</b> ..... 60</td></tr> <tr> <td>Description</td><td>-5.0mm ←————→ ±0 —————→ +5.0mm</td></tr> </table>	Data	40..... <b>50</b> ..... 60	Description	-5.0mm ←————→ ±0 —————→ +5.0mm
Data	40..... <b>50</b> ..... 60				
Description	-5.0mm ←————→ ±0 —————→ +5.0mm				
A4	<p>&lt;Registration Adjustment in FD Direction (Copy)&gt; Adjust registration in the FD direction on the IR side (for copies).</p> <table border="1"> <tr> <td>Data</td><td>46..... <b>50</b> ..... 60</td></tr> <tr> <td>Description</td><td>-3.0mm ←————→ ±0 —————→ +5.0mm</td></tr> </table>	Data	46..... <b>50</b> ..... 60	Description	-3.0mm ←————→ ±0 —————→ +5.0mm
Data	46..... <b>50</b> ..... 60				
Description	-3.0mm ←————→ ±0 —————→ +5.0mm				
A5	<p>&lt;Zoom Adjustment in CD Direction (AF-8)&gt; Adjust the zoom ratio in the CD direction on the IR side (when the Automatic Document Feeder is used).</p> <table border="1"> <tr> <td>Data</td><td>45..... <b>50</b> ..... 55</td></tr> <tr> <td>Description</td><td>Smaller ←————→ Greater</td></tr> </table>	Data	45..... <b>50</b> ..... 55	Description	Smaller ←————→ Greater
Data	45..... <b>50</b> ..... 55				
Description	Smaller ←————→ Greater				

Adjust Code	Setting (The default is <b>Highlighted</b> ).				
A6	<p>&lt;Zoom Adjustment in FD Direction (AF-8)&gt; Adjust the zoom ratio in the FD direction on the IR side (when the Automatic Document Feeder is used).</p> <table border="1"> <tr> <td>Data</td><td>45.....<b>50</b>..... 55</td></tr> <tr> <td>Description</td><td>Smaller   Greater</td></tr> </table>	Data	45..... <b>50</b> ..... 55	Description	Smaller   Greater
Data	45..... <b>50</b> ..... 55				
Description	Smaller   Greater				
A7	<p>&lt;Registration Adjustment in CD Direction (AF-8)&gt; Adjust registration in the CD direction on the IR side (when the Automatic Document Feeder is used).</p> <table border="1"> <tr> <td>Data</td><td>40.....<b>50</b>..... 60</td></tr> <tr> <td>Description</td><td>-5.0mm  ±0  +5.0mm</td></tr> </table>	Data	40..... <b>50</b> ..... 60	Description	-5.0mm  ±0  +5.0mm
Data	40..... <b>50</b> ..... 60				
Description	-5.0mm  ±0  +5.0mm				
A8	<p>&lt;Registration Adjustment in FD Direction (AF-8)&gt; Adjust registration in the FD direction on the IR side (when the Automatic Document Feeder is used).</p> <table border="1"> <tr> <td>Data</td><td>40.....<b>50</b>..... 60</td></tr> <tr> <td>Description</td><td>-5.0mm  ±0  +5.0mm</td></tr> </table>	Data	40..... <b>50</b> ..... 60	Description	-5.0mm  ±0  +5.0mm
Data	40..... <b>50</b> ..... 60				
Description	-5.0mm  ±0  +5.0mm				
A9	<p>&lt;Registration Adjustment in CD Direction (Paper Tray)&gt; Adjust registration in the CD direction on the engine side (when the Paper Tray is used).</p> <table border="1"> <tr> <td>Data</td><td>43.....<b>50</b>..... 57</td></tr> <tr> <td>Description</td><td>-3.5mm  ±0  +3.5mm</td></tr> </table>	Data	43..... <b>50</b> ..... 57	Description	-3.5mm  ±0  +3.5mm
Data	43..... <b>50</b> ..... 57				
Description	-3.5mm  ±0  +3.5mm				
AA	<p>&lt;Registration Adjustment in FD Direction (Paper Tray)&gt; Adjust registration in the FD direction on the engine side (when the Paper Tray is used).</p> <table border="1"> <tr> <td>Data</td><td>43.....<b>50</b>..... 57</td></tr> <tr> <td>Description</td><td>-3.5mm  ±0  +3.5mm</td></tr> </table>	Data	43..... <b>50</b> ..... 57	Description	-3.5mm  ±0  +3.5mm
Data	43..... <b>50</b> ..... 57				
Description	-3.5mm  ±0  +3.5mm				
Ab	<p>&lt;Registration Adjustment in CD Direction (PF-116)&gt; Adjust registration in the CD direction on the engine side (when the Paper Feed Unit is used).</p> <table border="1"> <tr> <td>Data</td><td>43.....<b>50</b>..... 57</td></tr> <tr> <td>Description</td><td>-3.5mm  ±0  +3.5mm</td></tr> </table>	Data	43..... <b>50</b> ..... 57	Description	-3.5mm  ±0  +3.5mm
Data	43..... <b>50</b> ..... 57				
Description	-3.5mm  ±0  +3.5mm				
AC	<p>&lt;Registration Adjustment in FD Direction (PF-116)&gt; Adjust registration in the FD direction on the engine side (when the Paper Feed Unit is used).</p> <table border="1"> <tr> <td>Data</td><td>43.....<b>50</b>..... 57</td></tr> <tr> <td>Description</td><td>-3.5mm  ±0  +3.5mm</td></tr> </table>	Data	43..... <b>50</b> ..... 57	Description	-3.5mm  ±0  +3.5mm
Data	43..... <b>50</b> ..... 57				
Description	-3.5mm  ±0  +3.5mm				

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# TROUBLESHOOTING

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# 1. INTRODUCTION

## 1-1. Reading the Text

- 1. The paper transport failure troubleshooting procedures are given according to the symptom. First, identify the location of the paper is present and start the procedure for that particular location. For malfunction troubleshooting, start with step 1 and onward.
- 2. Make checks in the numerical order of steps and, if an item is checked okay, go to the next step.

Pattern 1

Step	Check	Result	Action
1	~	YES	~
2		↑	

Go to step 2 if you answered No.

Pattern 2

Step	Check	Result	Action
1	~	YES	~
		NO	~
2			↑

Go to step 2 if it checks okay.



## 2. PAPER TRANSPORT FAILURE

### 2-1. Paper Misfeed

When a paper misfeed occurs, the display shows both the misfeed location and paper location.

Lit	Misfeed/Paper Location	Action Ref. Item	OP
PC	Copier paper take-up	2-5. (1)	
	Manual bypass paper take-up	2-5. (1)	
	PF-116 paper take-up	2-5. (4)	*
J2	Transport	2-5. (2)	
J3	Exit	2-5. (3)	
J8	AF-8	See the relevant option service manual.	*

\* When the option is mounted.

<Resetting misfeed display>

Misfeed in the copier	Open the relevant door, remove the misfeed and paper left inside, and close the door.
Misfeed in the option	

### 2-2. Size Error

When a size error occurs, the display gives a warning code.

Warning Code	Size Error
H2	The paper size setting on the paper source does not match the size of the paper actually loaded.

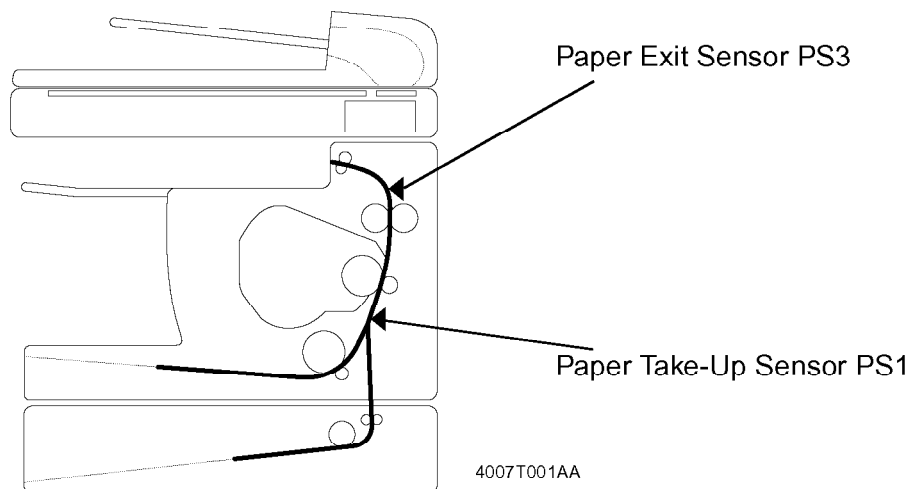
<Resetting error display>

Press the Clear/Stop key.

<Causes of a size error>

- Wrong paper size setting is made on the paper source.
- User loads paper of a wrong size in the paper source.
- Double feeding of paper occurs.

## 2-3. Misfeed Detection Sensor Layout



## 2-4. Types of Misfeed Detection and Detection Timings

- The following lists the types of misfeed detection and detection timings for different misfeed locations within the copier.
- The symbols “L” (for the leading edge) and “T” (for the trailing edge) given in ( ) indicate the particular edge of the paper detected by the sensor.

### NOTE

For the types of misfeed detection and detection timings of options, see the relevant option service manual.

#### <Copier/Manual Bypass Paper Take-Up Misfeed>

Type	Detection Start	Detection
Paper take-up failure detection	Paper Take-Up Solenoid energized	Paper Take-Up Sensor (L)

#### <Transport Misfeed>

Type	Detection Start	Detection
Trailing edge detection by Paper Take-Up Sensor	Paper Take-Up Sensor (L)	Paper Take-Up Sensor (T)
Leading edge detection by Paper Exit Sensor	Paper Take-Up Sensor (L)	Paper Exit Sensor (L)

#### <Exit Misfeed>

Type	Detection Start	Detection
Trailing edge detection by Paper Exit Sensor	Paper Take-Up Sensor (T)	Paper Exit Sensor (T)

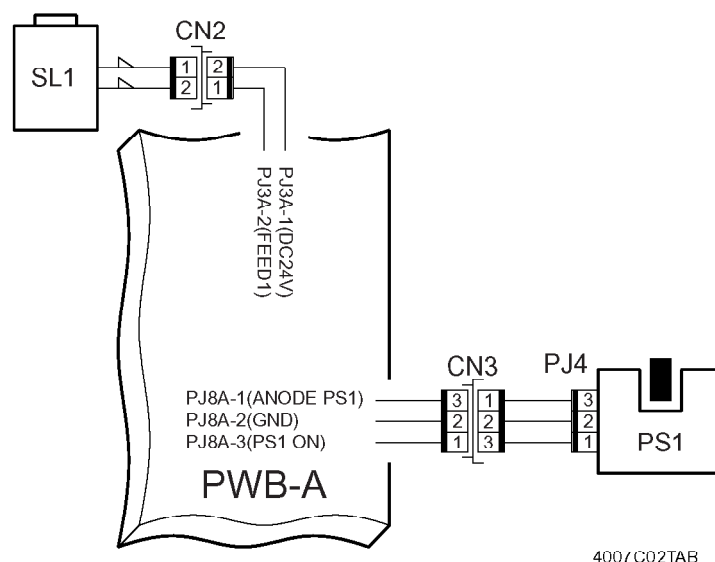
#### <Size Error>

Type	Detection Start	Detection
Size error detection	Paper Take-Up Sensor (L)	Paper length calculated based on the time it takes Paper Take-Up Sensor to detect (T).

## 2-5. Misfeed Clearing Procedures

### (1) Copier/Manual Bypass Paper Take-Up Misfeed

Relevant Electrical Parts	
Paper Take-Up Sensor PS1	Master Board PWB-A
Paper Take-Up Solenoid SL1	



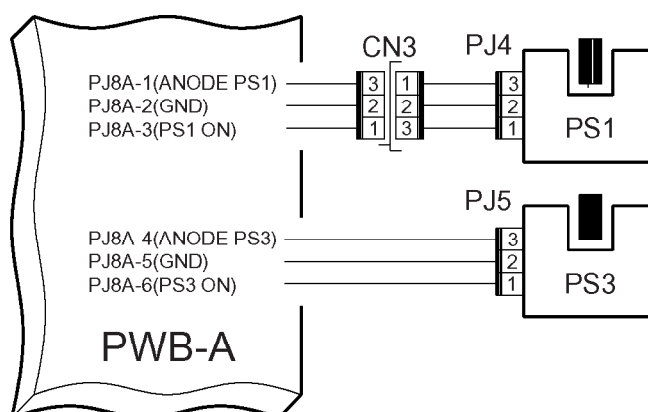
#### Copier/Manual Bypass Paper Take-Up Misfeed Clearing Procedure

- Paper is not taken up at all.

Step	Check	Result	Action
1	Paper meets product specifications.	NO	Change paper.
2	Paper is curled, wavy, or damp.	YES	Change paper. Advise user on correct paper storage.
3	Paper Take-Up Roll is deformed, worn, or has paper dust.	YES	Clean or change.
4	Paper Take-Up Solenoid operation: the voltage across PJ3A-2 on the Master Board and GND is DC24 V (solenoid deenergized) and DC0 V (instantaneously) (solenoid energized) when the Start key is pressed.	YES	Change solenoid.
		NO	Change Master Board.
5	Paper Take-Up Sensor operation: the voltage across PJ8A-3 on the Master Board and GND is DC5 V (sensor unblocked) and DC0 V (sensor blocked).	YES	Change Master Board.
		NO	Correct actuator. Change sensor.

## (2) Transport Misfeed

Relevant Electrical Parts	
Paper Take-Up Sensor PS1 Paper Exit Sensor PS3	Master Board PWB-A



4007C03TAB

### Transport Misfeed Clearing Procedure

- Paper has stopped near the PC Drum.

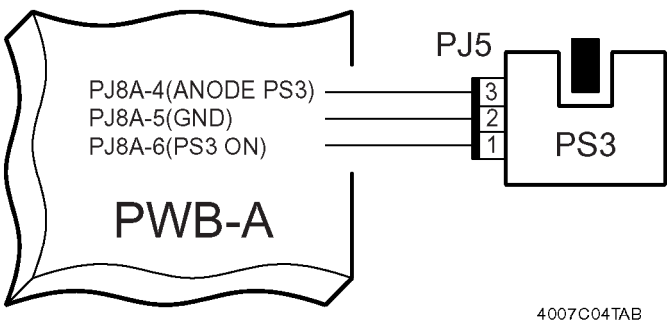
Step	Check	Result	Action
1	Transport Roller is dirty, deformed, or worn.	YES	Clean or change.
2	Pre-Image Transfer Guide Plate is dirty or deformed.	YES	Clean or change.
3	Image Transfer Roller is dirty, deformed, or worn.	YES	Clean or change.
4	PC Drum Paper Separator Fingers are dirty or deformed.	YES	Clean. Or, change I/C.

- Paper has stopped at the Fusing Unit.

Step	Check	Result	Action
1	Fusing Guide Plate is dirty or deformed.	YES	Clean or change.
2	Fusing Roller is dirty, deformed, or worn.	YES	Clean or change.
3	Fusing Roller Paper Separator Fingers are dirty, deformed, or worn.	YES	Clean, correct, or change.
4	Paper Exit Sensor operation: the voltage across PJ8A-6 on the Master Board and GND is DC0 V (sensor unblocked) and DC5 V (sensor blocked).	YES	Change Master Board.
		NO	Correct actuator. Change sensor.

(3) Exit Misfeed

Relevant Electrical Parts	
Paper Exit Sensor PS3	Master Board PWB-A



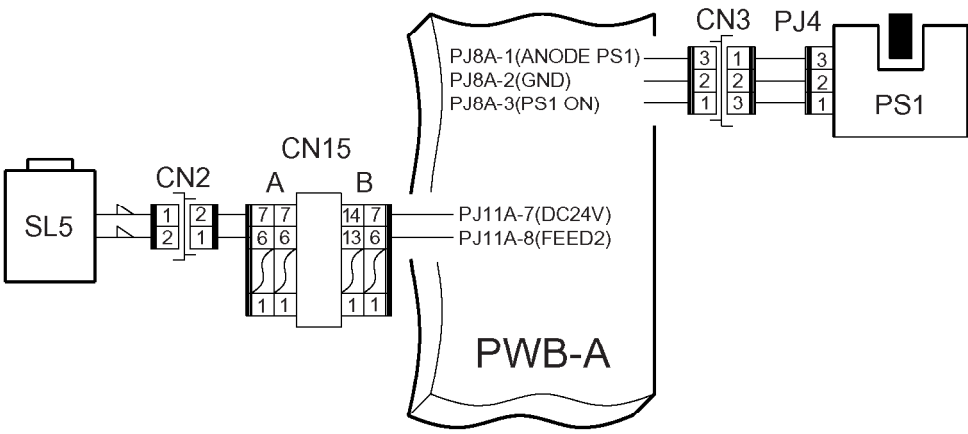
Exit Misfeed Clearing Procedure

- Paper has stopped at the exit section.

Step	Check	Result	Action
1	Paper Exit Roller rotation	NO	Correct drive coupling.
2	Paper Exit Roller is dirty, deformed, or worn.	YES	Clean or change.
3	Paper Exit Sensor operation: the voltage across PJ8A-6 on the Master Board and GND is DC0 V (sensor unblocked) and DC5 V (sensor blocked).	YES	Change Master Board.
		NO	Correct actuator. Change sensor.

(4) PF-116 Paper Take-Up Misfeed

Relevant Electrical Parts	
Paper Take-Up Sensor PS1 Paper Take-Up Solenoid SL5	Master Board PWB-A



4007C05TAB

PF-116 Paper Take-Up Misfeed Clearing Procedure

- Paper is not taken up at all.

Step	Check	Result	Action
1	Paper meets product specifications.	NO	Change paper.
2	Paper is curled, wavy, or damp.	YES	Change paper. Advise user on correct paper storage.
3	Paper Take-Up Roll is deformed, worn, or has paper dust.	YES	Clean or change.
4	Paper Transport Roller is deformed, worn, or has paper dust.	YES	Clean or change.
5	Paper Take-Up Solenoid operation: the voltage across PJ11A-8 on the Master Board and GND is DC24 V (solenoid deenergized) and DC0 V (instantaneously) (solenoid energized) when the Start key is pressed.	YES	Change solenoid.
		NO	Change Master Board.
6	Paper Take-Up Sensor operation: the voltage across PJ8A-3 on the Master Board and GND is DC5 V (sensor unblocked) and DC0 V (sensor blocked).	YES	Change Master Board.
		NO	Correct actuator. Change sensor.



### 3. MALFUNCTIONS

The copier's CPU is equipped with a self-diagnostic function that, on detecting a malfunction, gives the corresponding malfunction code on the display.

---

#### **Resetting a Malfunction**

- Turn OFF and then ON the power switch.
- 

#### **3-1. Detection Timing Classified by Malfunction Code**

Code	Description	Detection Timing
C0000	Main Motor's failure to turn	<ul style="list-style-type: none"><li>• The Lock signal does not go LOW within 1 s after the motor has been energized.</li><li>• The Lock signal remains HIGH for continuous 0.1 s or more while the motor remains energized.</li></ul>
C0045	Fusing Section Cooling Fan Motor's failure to turn	A voltage of 0.3 V or less is detected for a continuous 1 s period while the motor remains energized.
C0049	PH Section Cooling Fan Motor's failure to turn	A voltage of 0.35 V or less is detected for a continuous 0.5 s period while the motor remains energized.
C0200	HV output failure	<ul style="list-style-type: none"><li>• The drum charge monitor voltage is lower than 4.5 V when the power switch is turned ON.</li><li>• The drum charge monitor voltage remains 4.5 V or more when the drum charge output is turned ON.</li><li>• The image transfer monitor voltage is 0.5 V or more immediately before the image transfer output is turned ON.</li><li>• The image transfer monitor voltage does not increase 0.5 V or more within 40 ms after the image transfer output is turned ON.</li></ul>
C0500	Warm-up failure	<ul style="list-style-type: none"><li>• During the period from 12 s to 30 s after the start of the warm-up cycle, a condition of small temperature difference from the temperature at the start of the warm-up cycle is detected for a 50 ms period.</li><li>• The temperature detected by the Thermistor does not reach the set level within 120 s after the start of the warm-up cycle.</li></ul>
C0510	Abnormally low fusing temperature	<ul style="list-style-type: none"><li>• The temperature detected by the Thermistor remains lower than 94 °C for a continuous 50 ms period while the copier is in the standby state.</li><li>• The temperature detected by the Thermistor remains lower than 110 °C for a continuous 50 ms period during a copy cycle.</li></ul>
C0520	Abnormally high fusing temperature	The temperature detected by the Thermistor remains higher than 240 °C for a continuous 50 ms period while fusing temperature control is in progress.
C0650	Scanner Motor's failure to turn, Scanner Home Position Sensor malfunction	The Scanner Home Position Sensor is not activated within a given period of time after the Scanner Motor has been energized.

Code	Description	Detection Timing
C1200	System memory failure	A memory test error is detected during the power-on initialization procedure.
C1300	Polygon Motor malfunction	<ul style="list-style-type: none"> <li>• During the period 6 s after the Polygon Motor has been energized, a cluster of 56 or more SOS signals output for a 20 ms period is detected five consecutive times.</li> <li>• After the lapse of 6 s after the Polygon Motor has been energized, a cluster of below 43 or above 56 SOS signals output for a 20 ms period is detected five consecutive times.</li> <li>• No SOS signal is detected during the period from the start of laser emission to the deenergization of the Polygon Motor.</li> </ul>
C13F0	SOS detection failure	
C133B	Option communications error	The Controller Board is not detected within 5 s after the start of a print cycle.
C1468	Hardware (EEPROM) malfunction	An EEPROM read/write error occurs during the power-on initialization procedure.
C14A3	Exposure Lamp malfunction	The intensity level of the Exposure Lamp does not stabilize within a given period of time.

## 3-2. Troubleshooting Procedures

### (1) C0000: Main Motor's Failure to Turn

Relevant Electrical Parts	
Main Motor M1	Master Board PWB-A



4007C06TAB

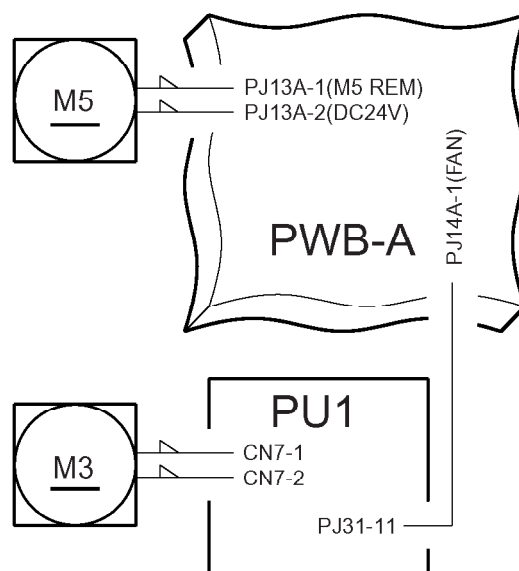
C0000

Step	Check	Result	Action
1	Main Motor turns after the malfunction has been reset.	NO	Correct drive.
2	Main Motor operation: the voltage across PJ6A-3 on the Master Board and GND is DC5 V (motor deenergized) and DC0 V (motor energized) after the malfunction has been reset.	NO	Change Master Board.
3	The voltage across PJ6A-4 on the Master Board and GND is DC5 V (motor deenergized) and DC0 V (motor energized) after the malfunction has been reset.	YES	Change Master Board.
		NO	Change motor.

(2) C0045: Fusing Section Cooling Fan Motor's Failure to Turn

C0049: PH Section Cooling Fan Motor's Failure to Turn

Relevant Electrical Parts	
Fusing Section Cooling Fan Motor M3	Power Supply Board PU1
PH Section Cooling Fan Motor M5	Master Board PWB-A



1007C07TAB

C0045

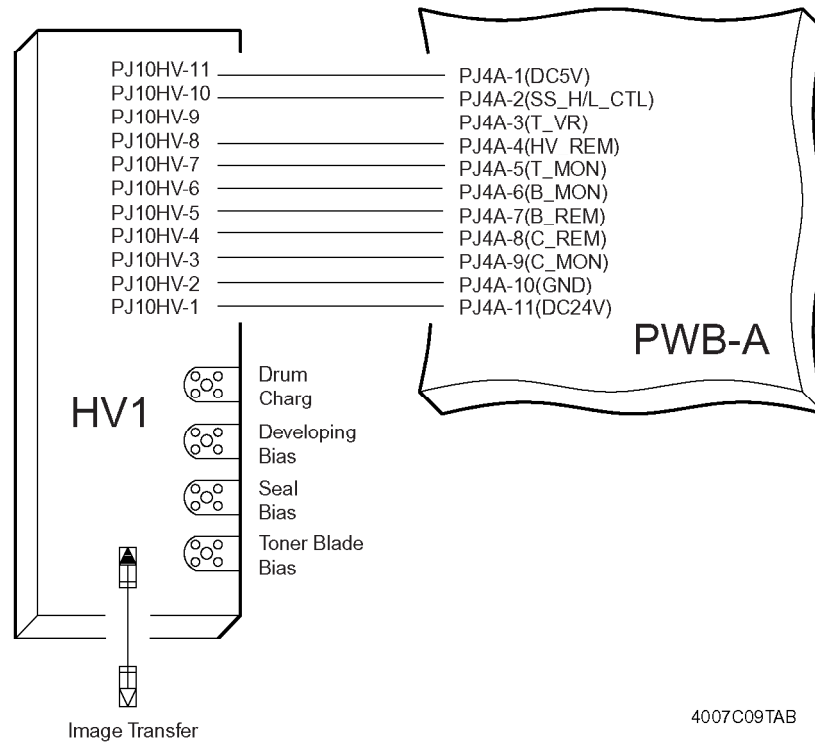
Step	Check	Result	Action
1	Fusing Section Cooling Fan Motor operation: the voltage across CN7-2 on the Power Supply Board and GND is DC24 V after the malfunction has been reset.	NO	Change Power Supply Board.
2	Fusing Section Cooling Fan Motor operation: the voltage across CN7-1 on the Power Supply Board and GND is DC1.2 V (during high-speed rotation) and DC12 V (during low-speed rotation) after the malfunction has been reset.	YES	Change motor.
		NO	Change Power Supply Board. Change Master Board.

C0049

Step	Check	Result	Action
1	PH Section Cooling Fan Motor operation: the voltage across PJ13A-2 on the Master Board and GND is DC24 V after the malfunction has been reset.	NO	Change Master Board.
2	PH Section Cooling Fan Motor operation: the voltage across PJ13A-1 on the Master Board and GND is DC1 V (motor energized) and DC24 V (motor deenergized) after the malfunction has been reset.	YES	Change motor.
		NO	Change Master Board.

### (3) C0200: HV Output Failure

Relevant Electrical Parts	
High Voltage Unit HV1	Master Board PWB-A



### C0200

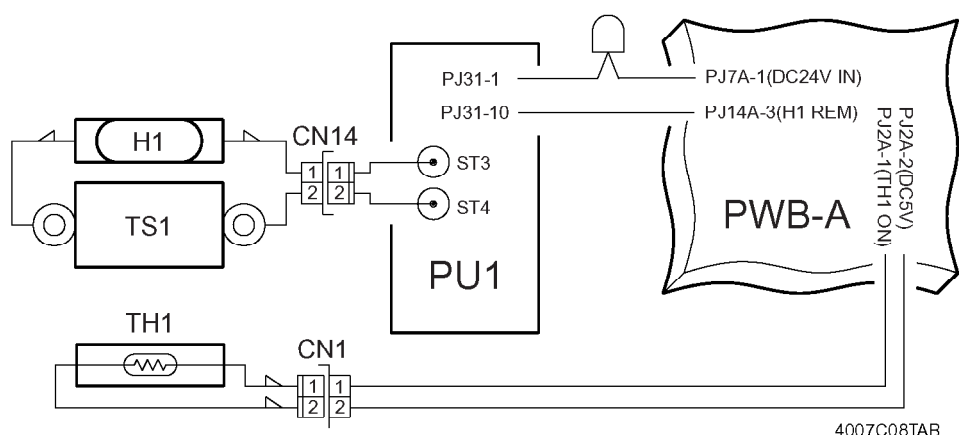
Step	Check	Result	Action
1	High Voltage Unit operation: the voltage across PJ4A-4 on the Master Board and GND is DC24 V after the malfunction has been reset.	YES	Change High Voltage Unit.
2	Proper connection between the High Voltage Unit and Master Board.	YES	Change Master Board.
		NO	Correct connection.

**(4) C0500: Warm-up Failure**

**C0510: Abnormally Low Fusing Temperature**

**C0520: Abnormally High Fusing Temperature**

Relevant Electrical Parts	
Fusing Heater Lamp H1 Thermoswitch TS1 Thermistor TH1	Power Supply Board PU1 Master Board PWB-A



**C0500, C0510**

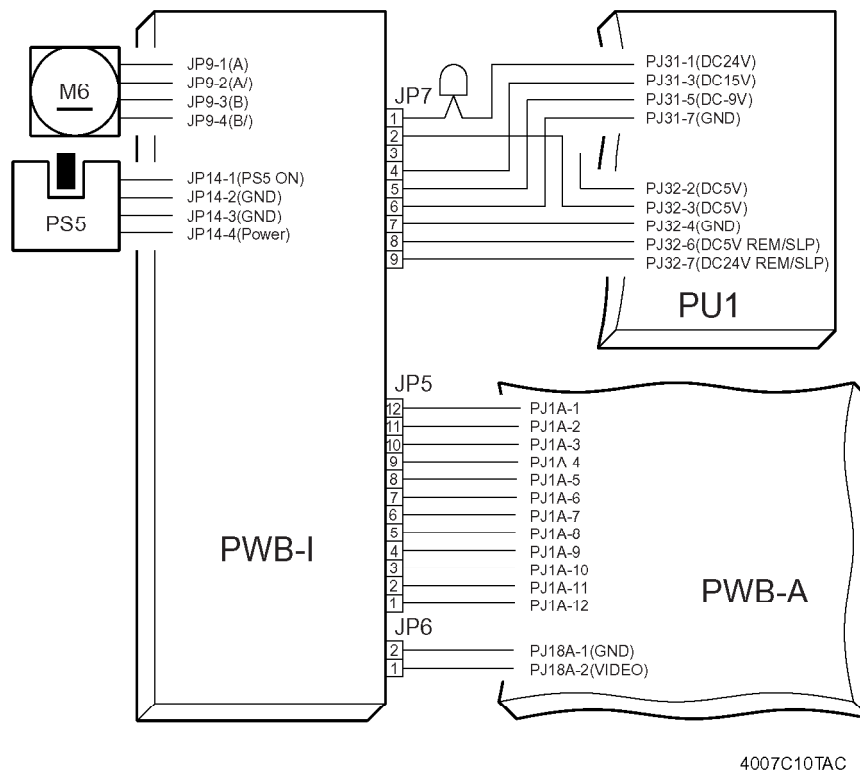
Step	Check	Result	Action
1	Fusing Heater Lamp turns ON after the malfunction has been reset.	YES	Correct Thermistor for mounting position and/or clean.
2	Thermistor operation: resistance across CN1-1 and 2 on the Fusing Unit side is infinite, as measured with CN1 disconnected.	YES	Change Thermistor.
3	Thermoswitch and Fusing Heater Lamp operation: there is continuity across CN14-1 and 2 on the Fusing Unit side, as measured with CN14 disconnected.	NO	Change Thermoswitch. Change Fusing Heater Lamp.
4	The voltage across PJ14A-3 on the Master Board and GND is DC0 V (Fusing Heater Lamp ON) and DC24 V (Fusing Heater Lamp OFF) after the malfunction has been reset.	YES	Change Power Supply Board. Change Fuse 2 of Power Supply Board.
		NO	Change Master Board.

**C0520**

Step	Check	Result	Action
1	Thermistor installed at the correct position.	NO	Correct.
2	Thermistor contaminated.	YES	Clean.
3	The circuit across CN1-1 and 2 on the Fusing Unit side is shorted as checked with CN1 disconnected.	YES	Change Thermistor.
		NO	Change Master Board. Change Power Supply Board.

**(5) C0650: Scanner Motor's Failure to Turn, Scanner Home Position Sensor Malfunction**

Relevant Electrical Parts	
Scanner Motor M6 Scanner Home Position Sensor PS5	Control Board PWB-I

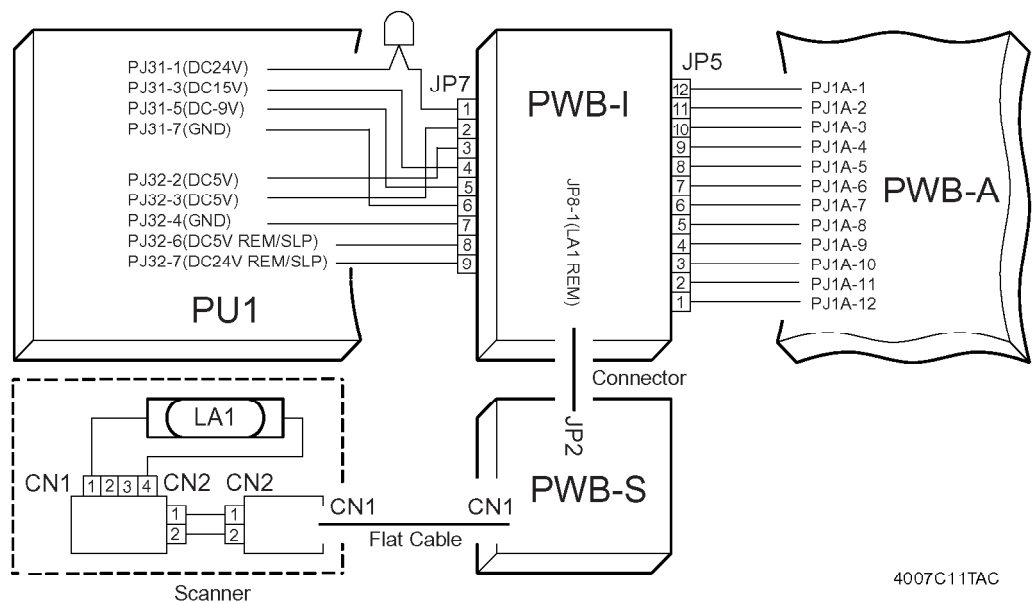


C0650

Step	Check	Result	Action
1	Scanner movement after the malfunction has been reset	YES	To step 4
2	Scanner motion as it is moved manually	NO	Correct drive coupling. Install belt.
3	Proper JP9 connector connection of Control Board	YES	Change Scanner Motor. Change Control Board.
		NO	Correct connections.
4	Scanner Home Position Sensor operation: the voltage across JP14-1 on the Control Board and GND is DC0 V (sensor unblocked) and DC3 V (sensor blocked) after the malfunction has been reset.	YES	Change Control Board.
		NO	Change sensor.

(6) C14A3: Exposure Lamp Malfunction

Relevant Electrical Parts	
Scanner Scanner Interface Board PWB-S	Control Board PWB-I



C14A3

Step	Check	Result	Action
1	Proper connections between the Scanner, Scanner Interface Board, and Control Board	YES	Change Scanner Interface Board. Change Control Board. Change Scanner.
		NO	Correct connections.



**(7) C1200: System Memory Failure**

**C1300: Polygon Motor Malfunction**

**C133B: Option Communications Error**

**C13F0: SOS Detection Failure**

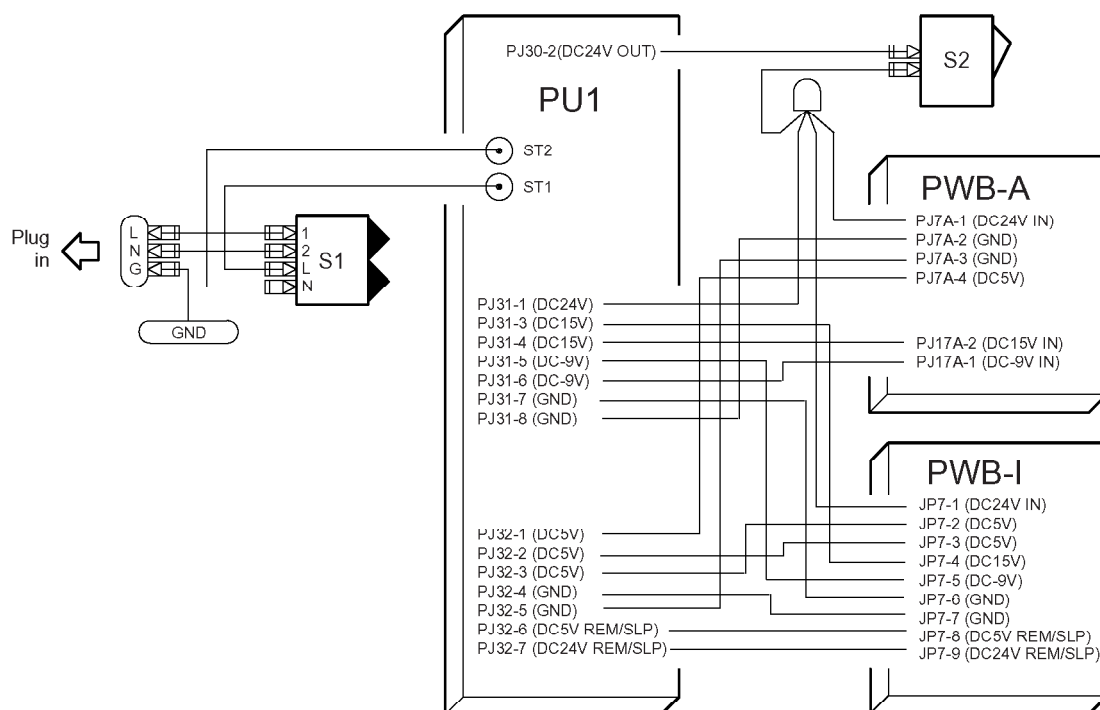
**C1468: Hardware (EEPROM) Malfunction**

- These malfunctions are detected mainly when there is a fault occurring in software, hardware, or communications.

Code	Action
C1200	<ol style="list-style-type: none"><li>1. Reset the malfunction.</li><li>2. If the malfunction is detected again, check the Control Board and Memory Board for proper connections.</li><li>3. If connections are okay, change the Control Board and/or Memory Board.</li></ol>
C1300, C13F0	<ol style="list-style-type: none"><li>1. Reset the malfunction.</li><li>2. If the malfunction is detected again, check the harness between, and PJ connections on, the PH Unit and Master Board.</li><li>3. If connections are okay, change the PH Unit and Master Board.</li></ol>
C133B	<ol style="list-style-type: none"><li>1. Reset the malfunction.</li><li>2. If the malfunction is detected again, check the Control Board and the controller board.</li><li>3. If connections are okay, change the Control Board and the controller board.</li></ol>
C1468	<ol style="list-style-type: none"><li>1. Run "FA" of Function.</li><li>2. If it has not been checked okay ("FF" appears on the display), change the EEPROM on the Control Board. If it has been checked okay ("00" appears on the display), change the Control Board itself.</li></ol>

## (8) Power Failure

Relevant Electrical Parts	
Power Supply Board PU1 Power Switch S1 Upper Unit Interlock Switch S2	Control Board PWB-I Master Board PWB-A



4007C12TAC

### • Power failure

Step	Check	Result	Action
1	No power is supplied when the Power Switch is turned ON. Blown Fuse 1 of the Power Supply Board.	YES	Change Fuse 1 of Power Supply Board.
		NO	Change Power Switch. Change Power Supply Board.
2	Only the display and Fusing Section Cooling Fan Motor operate. The voltage across PJ30-2 on the Power Supply Board and GND is DC24 V when the Power Switch is turned ON.	YES	Change Upper Unit Interlock Switch. Change Control Board. Change Master Board.
		NO	Change Power Supply Board.
3	Only the Fusing Section Cooling Fan Motor operates. The voltage across JP7-2/3 on the Control Board and GND is DC5 V when the Power Switch is turned ON.	YES	Change Control Board.
		NO	Change Power Supply Board.
4	Only the display and Scanner operate. The voltage across PJ7A-4 on the Master Board and GND is DC5 V when the Power Switch is turned ON.	YES	Change Master Board.
		NO	Change Power Supply Board.

## 4. IMAGE FAILURE

### 4-1. Image Failure Troubleshooting

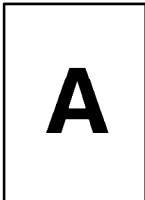
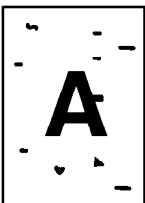
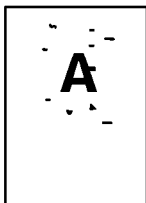
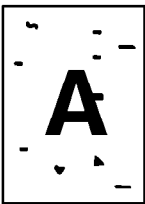
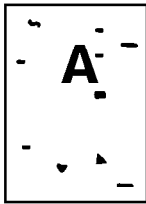
- In this chapter, troubleshooting is divided into “initial checks” and “troubleshooting procedures classified by image failures.”
- If any image failure has occurred, first make the initial checks; then proceed to the corresponding image failure troubleshooting procedure.

### 4-2. Initial Checks

- Determine if the failure is attributable to a basic cause or causes.

Section	Step	Check	Result	Action
Installation site	1	See “PRECAUTIONS FOR INSTALLATION” in GENERAL.	NO	Change the installation site.
Paper	2	Recommended paper used.	NO	Instruct user.
	3	Paper is damp.	YES	Change paper. Instruct user in paper storage.
Original	4	Original not flat	YES	Correct original.
	5	The original is written in light pencil.	YES	Instruct user.
	6	The original is transparent (OHP transparencies, etc.).	YES	Instruct user.
	7	Original Glass is dirty and scratched.	YES	Clean or change.
PM parts	8	The PM parts, as they relate to image formation, have reached the end of cleaning/replacement cycles.	YES	Clean or change. (See the PM list.)

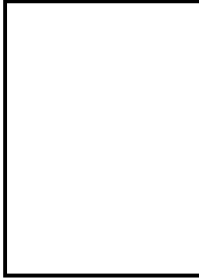
- Determine if the failure is attributable to an input system (IR) or output system (engine) fault.

Check	Result		Cause
Copy made at a reduced ratio.  Original  1177T03YA	Full-size copy	Reduced copy	Input system
		 4007T002AA	
	Full-size copy	Reduced copy	Output system
		 4007T003AA	

### 4-3. Troubleshooting Procedures Classified by Image Failure

- Image Failure Samples

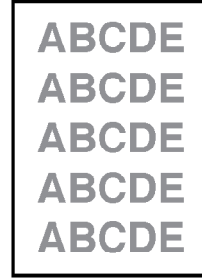
1. Blank copy



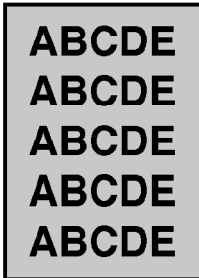
2. Black copy



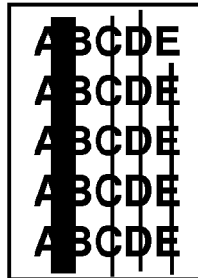
3. Low image density



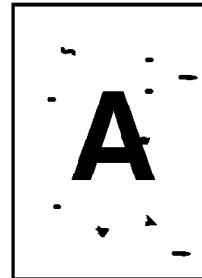
4. Foggy background



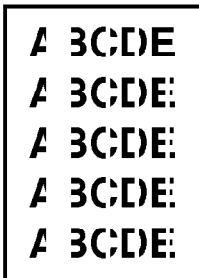
5. Black streaks or bands



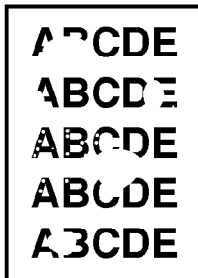
6. Black spots



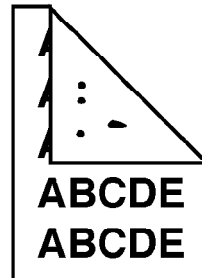
7. Blank streaks or bands



8. Void areas



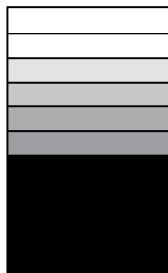
9. Smear on back



10. Uneven image density



11. Gradation reproduction failure



13. Periodically uneven image




1167T017AA

**(1) Blank copy**

Section	Step	Check	Result	Action
Engine	1	There is drive to the Imaging Cartridge (I/C).	NO	Correct or change drive coupling.
	2	I/C shutter opens and closes (at the PC Drum).	NO	Correct.
	3	Laser shutter (located in the laser beam path between the PH Unit and PC Drum) opens and closes.	NO	Correct.
	4	The image transfer current terminal is free of dirt and connected properly.	YES	Change the High Voltage Unit. Change PH Unit. Change Master Board. Change Image Transfer Roller.
			NO	Clean or connect correctly.
IR	1	Wiring between the Scanner and Control Board is connected. Flat cables are connected.	YES	Change the Scanner Interface Board. Change Control Board. Change Scanner.
			NO	Connect.

**(2) Black copy**

Section	Step	Check	Result	Action
Engine	1	The drum charge voltage terminal is dirty.	YES	Clean.
	2	Black copy is still produced even after the I/C has been replaced.	YES	Change High Voltage Unit. Change Master Board.
	3	Wiring between the PH Unit and Master Board is connected.	YES	Change the PH Unit. Change Master Board.
IR	1	Exposure Lamp is ON.	NO	See troubleshooting procedure for malfunction code C14A3.  T-15
			YES	Change Scanner. Change Control Board.
	2	Wiring between the Scanner and Control Board is connected.	NO	Connect.

**(3) Low image density**

Section	Step	Check	Result	Action
Engine	1	Toner has run out.	YES	Change I/C.
	2	The image transfer current terminal is dirty.	YES	Clean.
	3	The Image Transfer Roller is deteriorated.	YES	Change.
	4	The developing bias terminal is dirty.	YES	Clean.
	5	The Regulator Blade terminal is dirty.	YES	Clean.
	6	Image density is still low even after the I/C has been changed.	YES	Change High Voltage Unit. Change PH Unit. Change Master Board.
IR	1	Wiring between the Scanner and Control Board is connected.	YES	Change Scanner. Change Control Board.
			NO	Connect.

**(4) Foggy background**

Section	Step	Check	Result	Action
—	1	Extraneous light has entered the copier.	YES	Protect copier from extraneous light.
Engine	1	PC Drum is contaminated with foreign matter.	YES	Clean.
	2	Drum charge voltage terminal is dirty.	YES	Clean.
	3	Regulator Blade terminal is dirty.	YES	Clean.
	4	Seal bias terminal is dirty.	YES	Clean.
	5	Foggy background still occurs even after the I/C has been changed.	YES	Change High Voltage Unit. Change PH Unit. Change Master Board.
IR	1	Mirrors and lens are dirty.	YES	Clean.
	2	Exposure Lamp is dirty.	YES	Clean.
	3	Wiring between the Scanner and Control Board is connected.	YES	Change Scanner. Change Control Board.
			NO	Connect.

**(5) Black streaks or bands**

Section	Step	Check	Result	Action
Engine	1	PC Drum is dirty.	YES	Clean.
	2	Sleeve Roller is contaminated with foreign matter and caked toner.	YES	Clean.
	3	Toner spilled over areas inside copier.	YES	Change I/C.
	4	Fusing Roller is dirty.	YES	Clean or change.
			NO	Change I/C.
IR	1	Original is positioned correctly.	NO	Position correctly.
	2	Exposure Lamp is dirty.	YES	Clean.
	3	Wiring between the Scanner and Control Board is connected.	YES	Change Scanner. Change Control Board.
			NO	Connect.

**(6) Black spots**

Section	Step	Check	Result	Action
Engine	1	PC Drum is dirty.	YES	Clean.
	2	Sleeve Roller is contaminated with foreign matter and caked toner.	YES	Clean.
	3	Toner spilled over areas inside copier.	YES	Change I/C.
	4	Fusing Roller is dirty.	YES	Clean or change.
			NO	Change I/C.
IR	1	Mirrors, lens, or Original Glass are dirty.	YES	Clean.
	2	Shading sheet is dirty.	YES	Clean.

**(7) Blank streaks or bands**

Section	Step	Check	Result	Action
Engine	1	PC Drum is dirty.	YES	Clean.
	2	Sleeve Roller is dirty.	YES	Clean.
	3	Image Transfer Roller is scratched.	YES	Change.
	4	Fusing Roller is scratched or dirty.	YES	Clean or change.
	5	Paper Separator Fingers are scratched or dirty.	YES	Change.
	6	Dust is present on the light path between PH and PC Drum.	YES NO	Clean. Change I/C.
IR	1	Original Glass, mirrors, or lens are dirty.	YES	Clean.
	2	Shading sheet is dirty.	YES	Clean.
	3	Wiring between the Scanner and Control Board is connected.	YES	Change Control Board. Change Scanner.
			NO	Connect.

**(8) Void areas**

Section	Step	Check	Result	Action
Engine	1	Sleeve Roller is contaminated with foreign matter.	YES	Clean or change.
	2	Image Transfer Roller is scratched.	YES	Change.
	3	Image transfer current terminal is dirty.	YES	Clean.
	4	Developing bias terminal is dirty.	YES	Clean.
	5	Fusing Roller is scratched.	YES NO	Change. Change I/C.
IR	1	Wiring between the Scanner and Control Board is connected.	YES	Change Control Board. Change Scanner.
			NO	Connect.



**(9) Smear on back**

Section	Step	Check	Result	Action
Engine	1	Size error occurs ("H2" displayed).	YES	Set paper size.
	2	Image Transfer Roller is dirty.	YES	Clean.
	3	Toner spilled over areas inside copier.	YES	Change I/C.
	4	Fusing Back-Up Roller is dirty.	YES	Clean or change.
			NO	Change High Voltage Unit. Change PH Unit. Change Master Board.

**(10) Uneven image density**

Section	Step	Check	Result	Action
Engine	1	Toner is even on Sleeve Roller.	NO	Change I/C.
	2	Image Transfer Roller is dirty or deteriorated.	YES	Clean or change.
			NO	Change I/C. Change PH Unit. Change Master Board.
IR	1	Original Glass, mirrors, or lens are dirty.	YES	Clean.
	2	Shading sheet is dirty.	YES	Clean or change.
	3	Exposure Lamp is dirty or deteriorated.	YES	Clean. Change Scanner.
	4	Wiring between the Scanner and Control Board is connected.	YES	Change Control Board. Change Scanner.
			NO	Connect.

**(11) Gradation reproduction failure**

Section	Step	Check	Result	Action
Engine	1	Wiring between the PH Unit and Master Board is connected.	YES	Change PH Unit and Master Board.
			NO	Connect.
IR	1	Original Glass is dirty.	YES	Clean.
	2	Shading sheet is dirty.	YES	Clean.
	3	Wiring between the Scanner and Control Board is connected.	YES	Change Control Board. Change Scanner.
			NO	Connect.

**(12) Rough image**

Section	Step	Check	Result	Action
Engine	1	Toner is even on Sleeve Roller.	NO	Change.
	2	Image Transfer Roller is dirty.	YES	Clean or change.
	3	Image transfer current terminal is dirty.	YES	Clean.
			NO	Change I/C.
IR	1	Wiring between the Scanner and Control Board is connected.	YES	Change Control Board. Change Scanner.
			NO	Connect.

**(13) Periodically uneven image**

Section	Step	Check	Result	Action
Engine	1	Sleeve Roller drive gear is cracked or contaminated with foreign matter.	YES	Clean. Change I/C.
	2	Developing Unit drive gear is cracked or contaminated with foreign matter.	YES	Clean. Change I/C.
	3	PC Drum drive gear is cracked or contaminated with foreign matter.	YES	Clean. Change I/C.
	4	Image Transfer Roller drive gear is cracked or contaminated with foreign matter.	YES	Clean or change.
	5	Fusing Unit drive gear is cracked or contaminated with foreign matter.	YES	Clean or change.
	6	PH Unit is securely fastened.	YES NO	Change PH Unit. Secure in position.
IR	1	Scanner Motor drive gear is cracked or contaminated with foreign matter.	YES	Clean or change.
	2	Scanner Motor is secured in position.	NO	Secure in position.
	3	Timing Belts are loose.	YES	Adjust.
	4	Scanner rails are damaged or contaminated with foreign matter.	YES	Clean or change.
	5	Scanner guide shaft is damaged or contaminated with foreign matter.	YES	Clean. Change Scanner.



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# PARTS MODIFICATION NOTICE

REF NO. : MO000516  
 DATE : 2000/07/17  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 001

MODEL NAME : Di151  
 SUBJECT : SUPPLEMENTARY INFORMATION FOR PARTS MANUAL  
 KDB NO. : -----

Appending this information to the Parts Manual will make that Manual applicable to first production machines.  
 Please correct your Parts Manual.

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16 SCREWS AND WASHERS								
INDEX	PART NO.	PART NAME	ILLUST	INDEX	PART NO.	PART NAME	ILLUST	INDEX
0208	0754-3010-08	SPRING ROLL PIN		4012	9743-0306-13	TAPPING SCREW		
				4021	9743-0308-14			
0526	9752-2016-50	PIN		8302	9712-0400-13	WASHER		
0601	9751-3010-50							
1124	9642-0408-21	SCREW		8501	9716-0300-01	WASHER		
				8509	9716-0500-01			
1305	9646-0306-13	SCREW ← Addition		9102	9721-0200-01	RETAINING RING		
1308	9646-0308-13			9105	9721-0300-01			
1312	9646-0316-13			9107	9721-0400-01			
1318	9646-0408-13			9109	9721-0500-01			
				9112	9721-0600-01			
3302	9732-0306-07	TAPPING SCREW		9301	1086-1151-01	RETAINING RING		
				9302	4425-3001-01			
3601	9735-0308-13	TAPPING SCREW ← Addition		3211	9657-0314-07	TAPPING SCREW		← Addition
3604	9735-0308-13							
3620	9735-0314-13							
3641	9735-0308-14							
3644	9735-0308-14							
3608	9735-0408-13							
3604	9738-0308-13	TAPPING SCREW						
3606	9738-0306-13							
3704	9739-0308-13	TAPPING SCREW ← Addition						
3705	9739-0306-13							
3724	9739-0412-14							
3727	9739-0308-14							
3733	9739-0310-14							
3703	9739-0412-13							
3907	9742-0308-13	TAPPING SCREW						
3923	9742-0310-13							
3926	9742-2608-13							
3924	9742-0308-14							

# PARTS MODIFICATION NOTICE

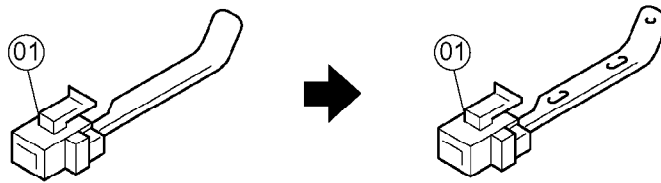
REF NO. : MO000551

DATE : 2000/08/03

MODEL NAME : Di151	PagePro/Works 8/8e/8L	MINOLTAFAX2600	MINOLTAFAX3600
MODEL CODE : 4007	4109	4501-301	4502-301
PMN NO. : 002	035	027	026

MODEL NAME : Di151, PagePro/Works 8/8e/8L, MINOLTAFAX2600, MINOLTAFAX3600  
 SUBJECT : MICRO-SWITCH CHANGE  
 KDB NO. : -----

To achieve parts standardization, the shape of the micro-switch (01) has been changed.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	10	21	4109-6301-01	4109-6301-02	1 1	Y	MICRO-SWITCH 000	AFTER
4109	01	05	27	4109-6301-01	4109-6301-02	1 1	Y	MICRO-SWITCH 000	AFTER
4501-301	01	09	22	4109-6301-01	4109-6301-02	1 1	Y	MICRO-SWITCH 000	AFTER
4502-301	01	09	22	4109-6301-01	4109-6301-02	1 1	Y	MICRO-SWITCH 000	AFTER

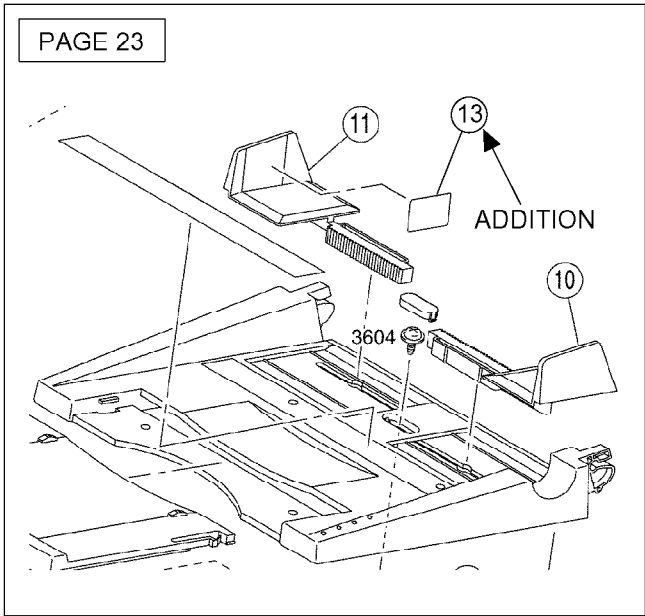
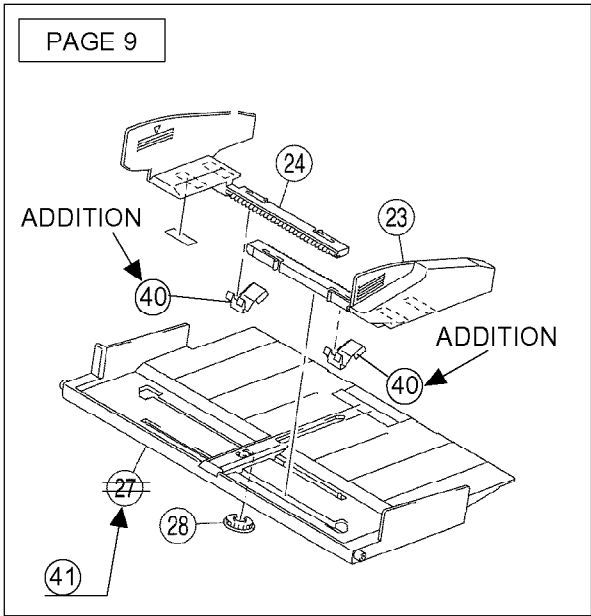
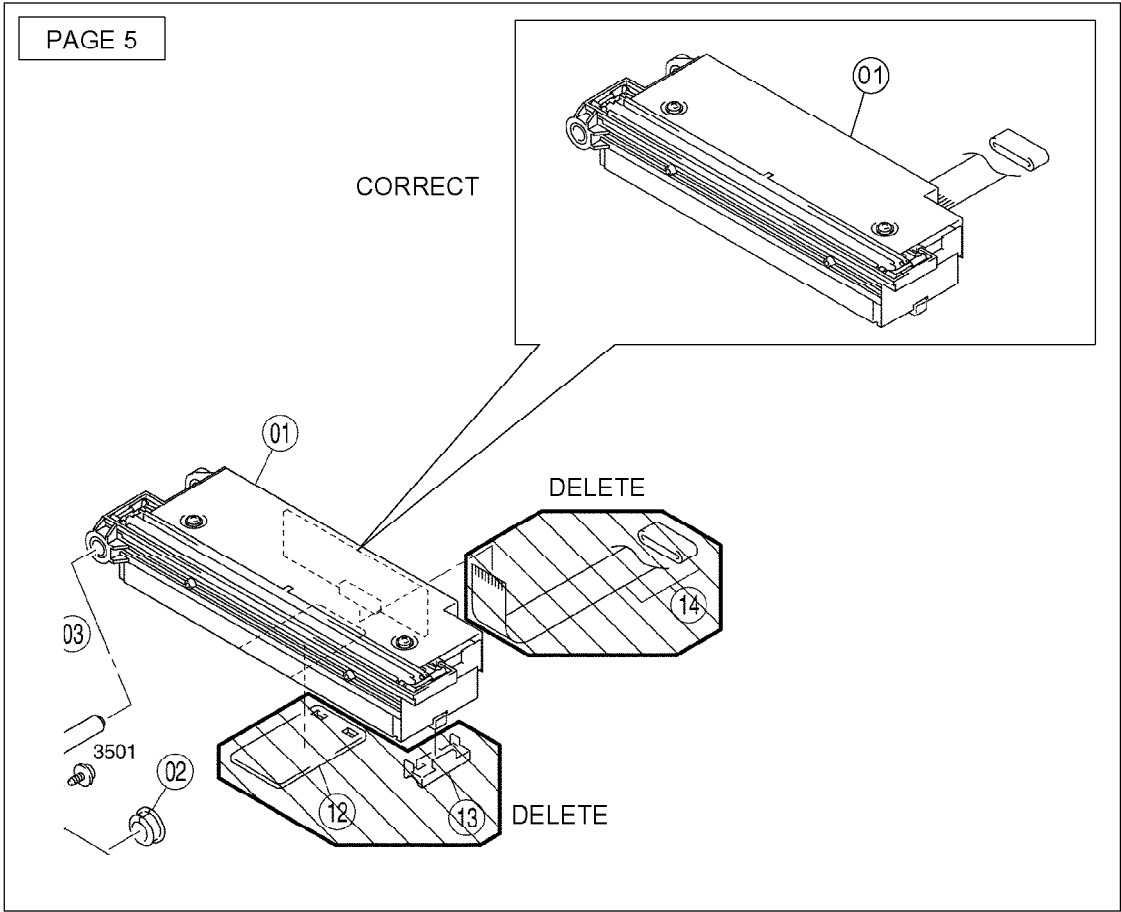
# PARTS MODIFICATION NOTICE

REF NO. : MO000563  
 DATE : 2000/08/03  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 003

MODEL NAME : Di151  
 SUBJECT : CORRECTION FOR PARTS MANUAL  
 KDB NO. : -----

Please make the following corrections to your Parts Manual.

PAGE	INDEX	PART NO.	PART NAME	QTY	SFIX
6	01	4647-1005-01 02	CCD MODULE	1	000
	12	4647-1021-01	CCD PAD	1	000
	13	4647-1017-01	SLIDE PAD	1	000
	14	4647-1004-01	CONNECTOR UNIT	1	000
			DELETE		
18	27	4007-0755-01	LIFTING PLATE ASSY	1	000
			DELETE		
	40	4007-3110-01	PLATE SPRING	2	000
	41	4110-3005-03	LIFTING PLATE	1	000
			ADDITION		
12	09	4007-0752-01	<del>HOUSING ASSY</del> ROLLER ASSY	1	000
24	13	4647-1130-01	LABEL	1	000
			ADDITION		

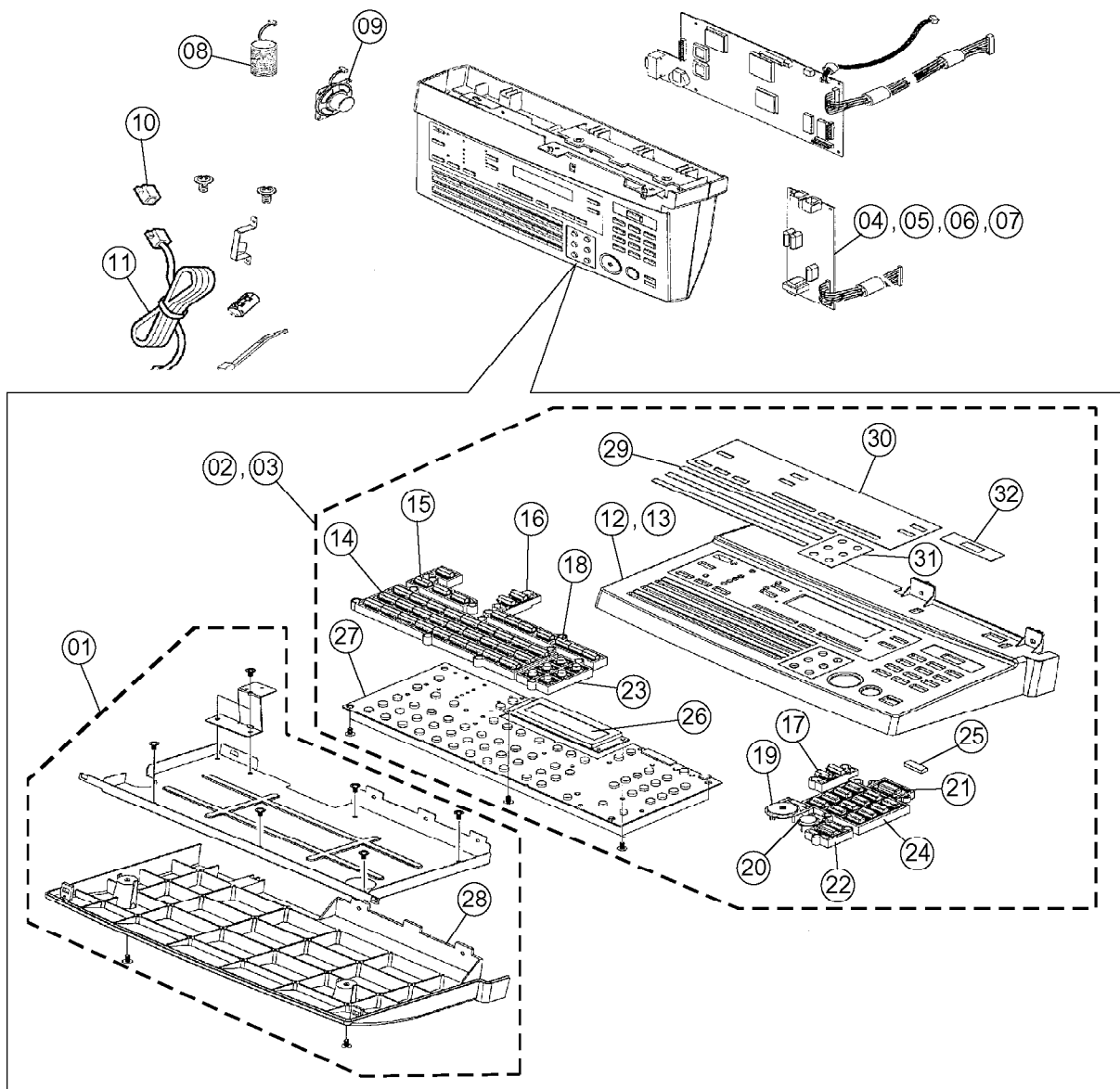




# PARTS MODIFICATION NOTICE

REF NO. : MO000662  
DATE : 2000/09/22  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 004

MODEL NAME : Di151  
SUBJECT : P/NO. FOR PARTS OF FAX UNIT  
KDB NO. : -----



NOTE1: NCU Board (06) is for Europe and NCU Board (08) is for South Africa.

NOTE2: NCU Board (05) is for except Australia and New Zealand, NCU Board (07) is for Australia and New Zealand.

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	18	01		4648-1001-01	1	Y	FRAME 000	AFTER
4007	02	18	02		4648-1002-01	1	Y	CONTROL PANEL 214, 311	AFTER
4007	03	18	02		4648-1003-01	1	Y	CONTROL PANEL 111, 211, 212, 711	AFTER
4007	04	18	04		4648-1005-01	1	Y	NCU BOARD 111, 212, 214, 311, 711	AFTER
4007	05	18	04		4648 1006 01	1	Y	NCU BOARD 211	AFTER
4007	06	18	05		4648-1007-01	1	Y	NCU BOARD 212	AFTER
4007	07	18	06		4648-1008-01	1	Y	NCU BOARD 211, 212	AFTER
4007	08	18	07		4501-1001-01	1	Y	BATTERY ASSY 000	AFTER
4007	09	18	08		4648-1010-01	1	Y	SPEAKER 000	AFTER
4007	10	18	09		4648-1011-01	1	Y	CONNECTOR 000	AFTER
4007	11	18	10		4648-1012-01	1	Y	CORD 000	AFTER
4007	12	18	11		4648-1013-01	1	Y	HOUSING 214, 311	AFTER
4007	13	18	11		4648-1014-01	1	Y	HOUSING 111, 211, 212, 711	AFTER
4007	14	18	12		4648-1015-01	1	Y	KEY TOP ONE TOUCH 000	AFTER
4007	15	18	13		4648-1016-01	1	Y	KEY TOP MEMORY 000	AFTER
4007	16	18	14		4648-1017-01	1	Y	KEY TOP TWO 000	AFTER
4007	17	18	15		4648-1018-01	1	Y	KEY TOP TWO (P) 000	AFTER
4007	18	18	16		4648-1019-01	1	Y	KEY TOP ARROW 000	AFTER
4007	19	18	17		4648-1020-01	1	Y	KEY TOP START 000	AFTER
4007	20	18	18		4648-1021-01	1	Y	KEY TOP STOP 000	AFTER

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
								SFIX	
4007	21	18	19		4648-1022-01	1	Y	KEY TOP SWITCH 000	AFTER
4007	22	18	20		4648-1023-01	1	Y	KEY TOP RESET 000	AFTER
4007	23	18	21		4648-1024-01	1	Y	KEY TOP FUNCTION 000	AFTER
4007	24	18	22		4648-1025-01	1	Y	KEY TOP NUMFRAI 000	AFTER
4007	25	18	23		4648-1026-01	1	Y	COVER 000	AFTER
4007	26	18	24		4501-1007-01	1	Y	LCD ASSY 000	AFTER
4007	27	18	25		4648-1028-01	1	Y	PANEL BOARD 000	AFTER
4007	28	18	26		4648-1029-01	1	Y	FRAME 000	AFTER
4007	29	18	27		4648-1030-01	1	Y	LABEL ONE DIAL LIST 000	AFTER
4007	30	18	28		4648-1031-01	1	Y	LABEL LCD 000	AFTER
4007	31	18	29		4648-1032-01	1	Y	LABEL FUNCTION 000	AFTER
4007	32	18	30		4648-1033-01	1	Y	LABEL SWITCH 000	AFTER

PARTS MODIFICATION NOTICE

REF NO. : MO000817  
DATE : 2000/12/15  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 005

MODEL NAME : Di151  
SUBJECT : IC CHANGE  
KDB NO. : KB0000215

Firmware version: Ver1.00 → Ver1.10

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	04	07	4007-6601-02	4007-6601-03	1 1	Y	IC 000	XX008945

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

PARTS MODIFICATION NOTICE

REF NO. : MO000831  
DATE : 2000/12/15  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 006

MODEL NAME : Di151  
SUBJECT : IC CHANGE  
KDB NO. : KB0000216

Firmware version: Ver1.10 → Ver1.30

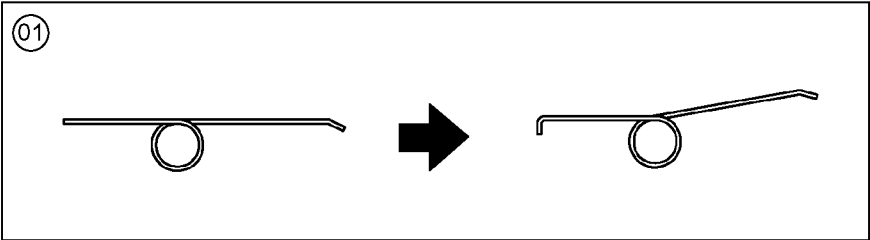
MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	04	07	4007-6601-03	4007-6601-04	1 1	Y	IC	XX027731
000									

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010002  
DATE : 2001/01/15  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 007

MODEL NAME : Di151  
SUBJECT : TORSION SPRING CHANGE  
KDB NO. : KB0000222



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	09	34	4110-3019-01	4007-3019-01	1 1	Y	TORSION SPRING 000	XX010460

PARTS MODIFICATION NOTICE

REF NO. : MO010093  
DATE : 2001/03/21  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 008

MODEL NAME : Di151  
SUBJECT : PWB ASSY CHANGE  
KB NO. : SED-PKD-010207

IC1 in the PWB Assy (01) version: 4008-50GO-01-00 ➡ 4008-50GO-02-00

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	05	09	4007-0101-03	4007-0101-04	1 1	Y	PWB ASSY 000	N/A

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

PARTS MODIFICATION NOTICE

REF NO. : MO010123  
DATE : 2001/04/10  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 009

MODEL NAME : Di151  
SUBJECT : IC CHANGE  
KB NO. : SED-PKD-010059

Firmware version: Ver1.30 → Ver1.40

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	04	07	4007-6601-04	4007-6601-05	1 1	Y	IC	XX034927
								000	

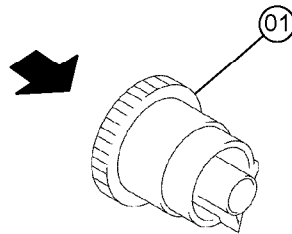
The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.



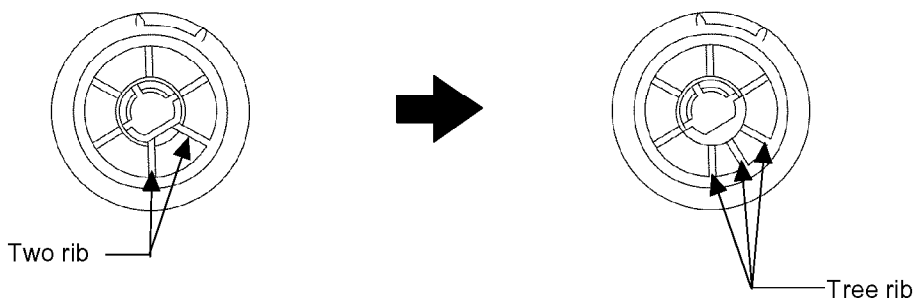
# PARTS MODIFICATION NOTICE

REF NO. : MO010157  
 DATE : 2001/05/08  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 010

MODEL NAME : Di151  
 SUBJECT : GEAR CHANGE  
 KB NO. : SED-PKD-010371



① : View From Arrow



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	09	19	4110-3010-02	4110-3010-03	1 1	Y	GEAR 000	XX006267

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

PARTS MODIFICATION NOTICE

REF NO. : MO010219  
DATE : 2001/06/05  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 010A

MODEL NAME : Di151  
SUBJECT : IC CHANGE  
KB NO. : SED-PKD-010286

Firmware version code: Ver. 1.40 → Ver. 2.50

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	04	07	4007-6601-05	4007-6603-01	1 1	Y	IC 212, 214, 711	XX036103

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010224

DATE : 2001/06/05

MODEL NAME : Di151

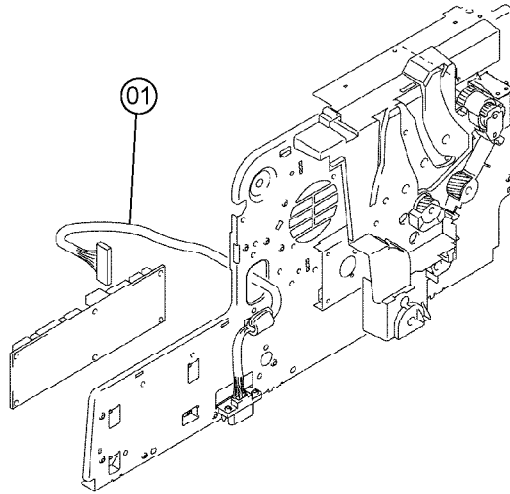
MODEL CODE : 4007

PMN NO. : 011

MODEL NAME : Di151

SUBJECT : PART NUMBER OF WIRE HARNESS ASSY

KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
								SFIX	
4007	01	05	35		4007-6809-02	1	Y	WIRE HARNESS ASSY	AFTER
000									

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010304

DATE : 2001/07/03

MODEL NAME : Di151

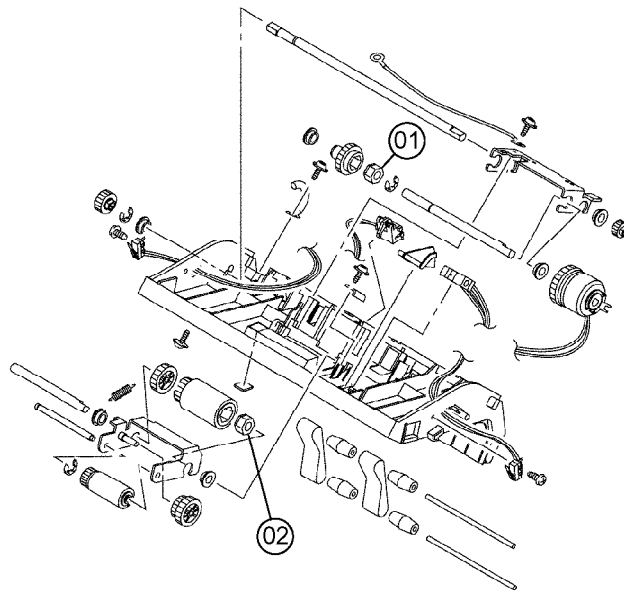
MODEL CODE : 4007

PMN NO. : 012

MODEL NAME : Di151 (AF-8)

SUBJECT : PART NUMBER OF ONE-WAY CLUTCH

KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	12		4647-1131-01	1	Y	ONE-WAY CLUTCH 000	AFTER
4007	02	13	13		4647-1132-01	1	Y	ONE-WAY CLUTCH 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings: 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010306  
DATE : 2001/07/03  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 013

MODEL NAME : Di151  
SUBJECT : PART NUMBER OF SPEAKER ASSY CHANGE  
KB NO. : - - - - -

Due to the reason of parts management, P/No. for the Speaker Assy (01) has been changed.

MODEL CODE	NO.	FIG	IND	BEFORE	AFTER	QTY	I	PART NAME	SE/NO.
				MODI. P/NO.	MODI. P/NO.			→	SFIX
4007	01	18	08	4648-1010-01	4504-1008-01	1 1	Y	SPEAKER ASSY 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010474

DATE : 2001/09/28

MODEL NAME : Di151

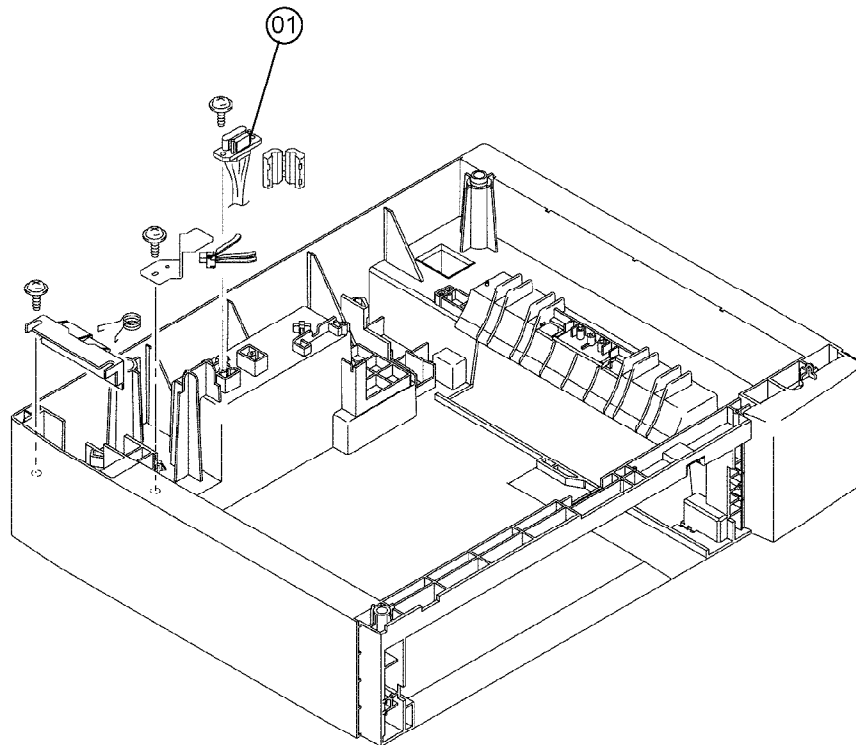
MODEL CODE : 4007

PMN NO. : 014

MODEL NAME : Di151 (PF-116)

SUBJECT : PART NUMBER OF WIRE HARNESS ASSY

KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
								SFIX	
4007	01	10	26		4646-6801-02	1	Y	WIRE HARNESS ASSY	AFTER
								000	

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

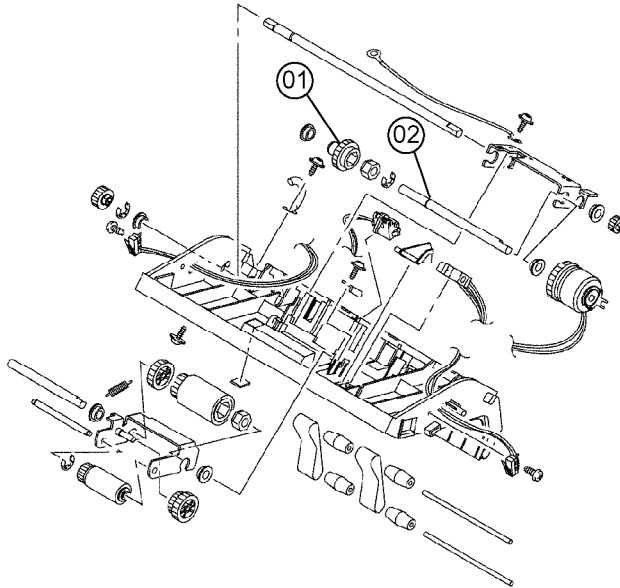
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010485  
 DATE : 2001/09/28  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 015

MODEL NAME : Di151 (AF-8)  
 SUBJECT : PART NUMBER OF GEAR AND SHAFT  
 KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	14		4647-1133-01	1	Y	GEAR 000	AFTER
4007	02	13	15		4647-1134-01	1	Y	SHAFT 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings: 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO010595

DATE : 2001/11/12

MODEL NAME : Di151

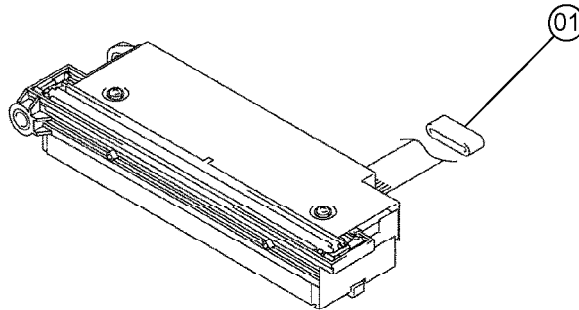
MODEL CODE : 4007

PMN NO. : 016

MODEL NAME : Di151

SUBJECT : PART NUMBER OF FERRITE CORE

KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
								SFIX	
4007	01	03	15		4647-1135-01	1	Y	FERRITE CORE 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.



# PARTS MODIFICATION NOTICE

REF NO. : MO010626

DATE : 2001/11/26

MODEL NAME : Di151

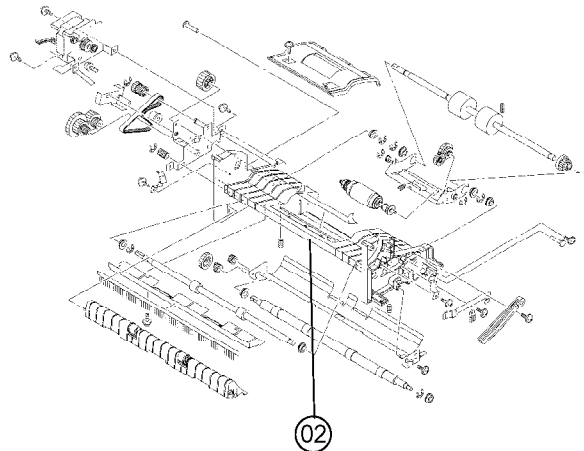
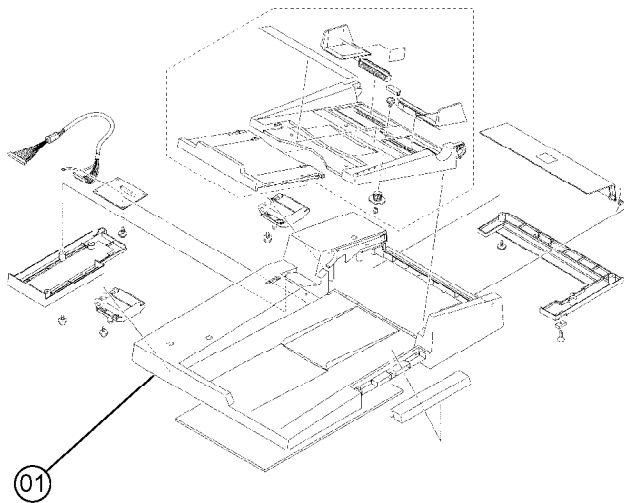
MODEL CODE : 4007

PMN NO. : 017

MODEL NAME : Di151 (AF-8)

SUBJECT : PART NUMBER FOR SDH COVER AND ADF FRAME

KB NO. : - - - - -



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	12	14		4647-1136-01	1	Y	SDH COVER 000	AFTER
4007	02	14	25		4647-1137-01	1	Y	ADF FRAME 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings: 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

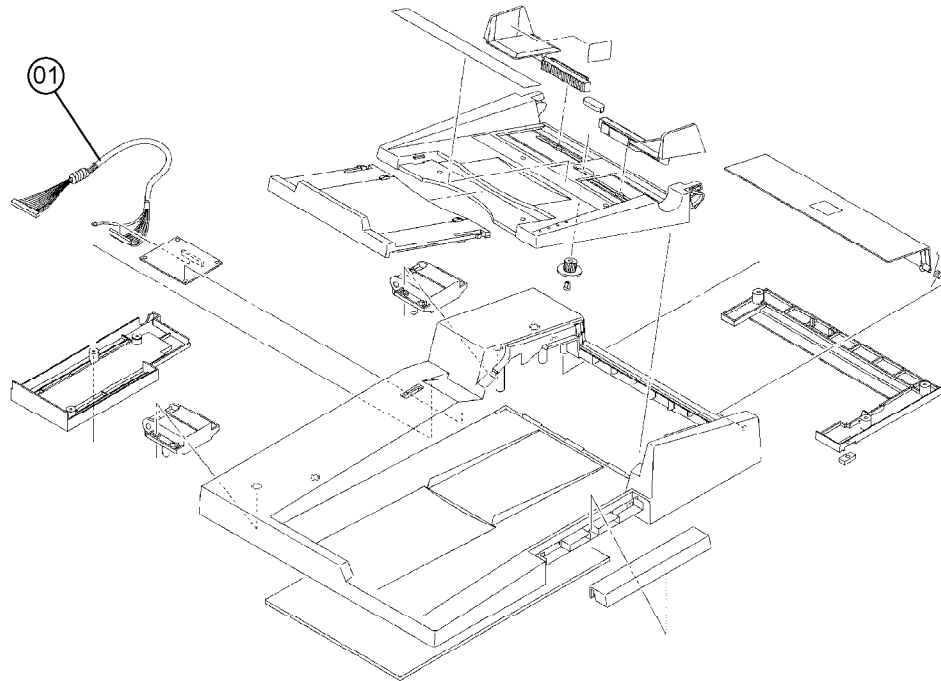
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020026  
 DATE : 2002/01/17  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 018

MODEL NAME : Di151 (AF-8)  
 SUBJECT : INFORMATION FOR PARTS NUMBER  
 KB NO. : - - - - -

Due to a request from the field, the following item has been newly assigned as a field replacement unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	12	15		4647-1138-01	1	Y	HARNESS 000	AFTER

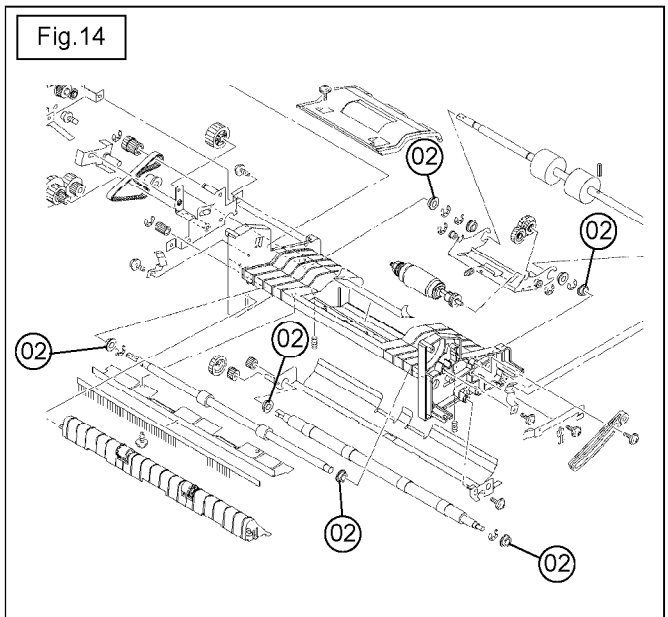
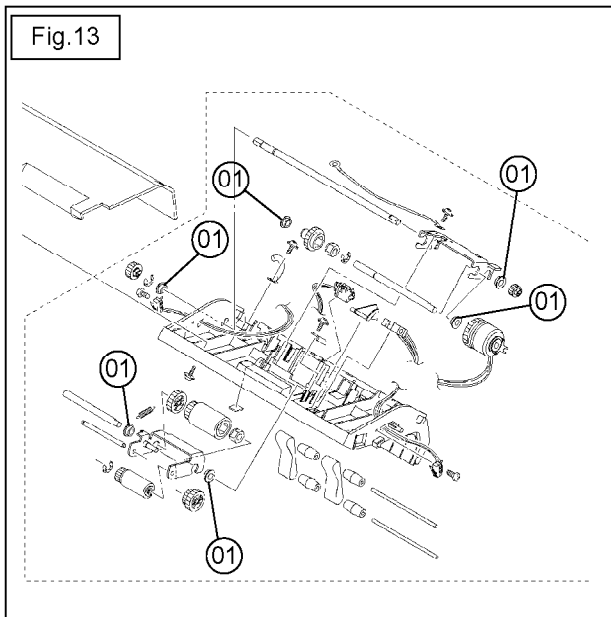
The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020091  
 DATE : 2002/02/12  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 019

MODEL NAME : Di151 (AF-8)  
 SUBJECT : INFORMATION FOR PARTS NUMBER  
 KB NO. : - - - - -

Due to a request from the field, the Bushing (01, 02) has been newly assigned as a field replacement unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFX	SE/NO.
4007	01	13	16		4647-1139-01	6	Y	BUSHING 000	AFTER
4007	02	14	26		4647-1139-01	6	Y	BUSHING 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020153

DATE : 2002/03/06

MODEL NAME : Di151

MODEL CODE : 4007

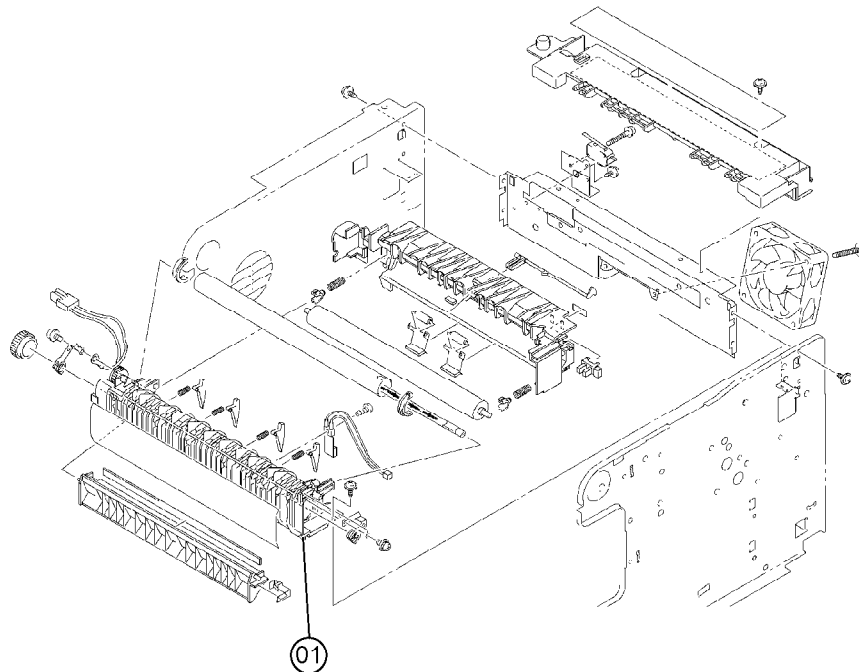
PMN NO. : 020

MODEL NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER

KB NO. : - - - - -

Due to a request from the field, the following item has been newly assigned as a field replacement unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	07	24		4007-0754-01	1	Y	HOLDER ASSY 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020316

DATE : 2002/04/23

MODEL NAME : Di151

MODEL CODE : 4007

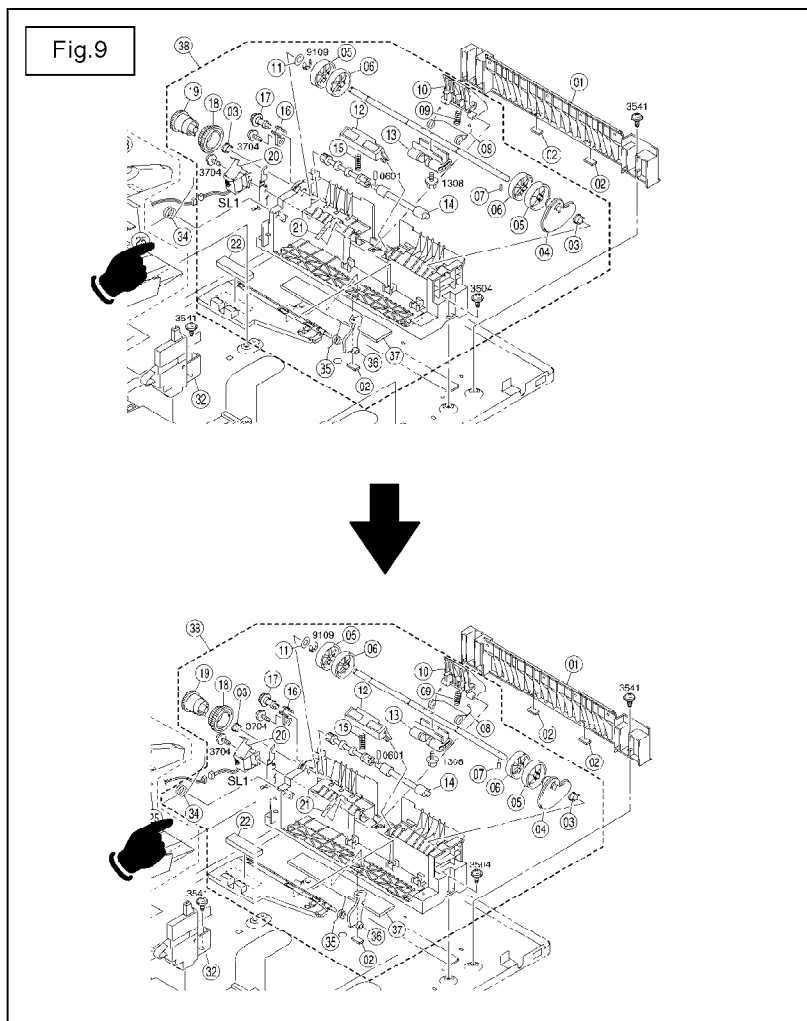
PMN NO. : 021

MODEL NAME : Di151

SUBJECT : CORRECTION FOR PARTS MANUAL

KB NO. : - - - - -

Please make the following corrections to your Parts Manual.



The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MOD. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings: 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "+" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020358

DATE : 2002/05/14

MODEL NAME : Di151

MODEL CODE : 4007

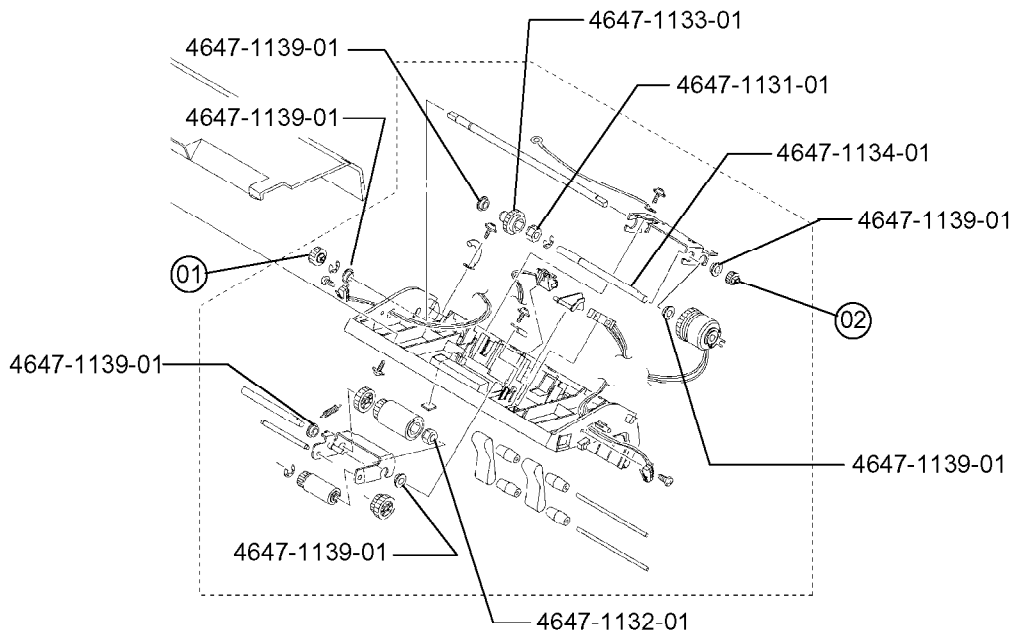
PMN NO. : 022

MODEL NAME : Di151 (AF-8)

SUBJECT : INFORMATION FOR PARTS NUMBER

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the following items (01, 02) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	17		4647-1140-01	1	Y	GEAR 000	AFTER
4007	02	13	18		4647-1141-01	1	Y	GEAR 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings: 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

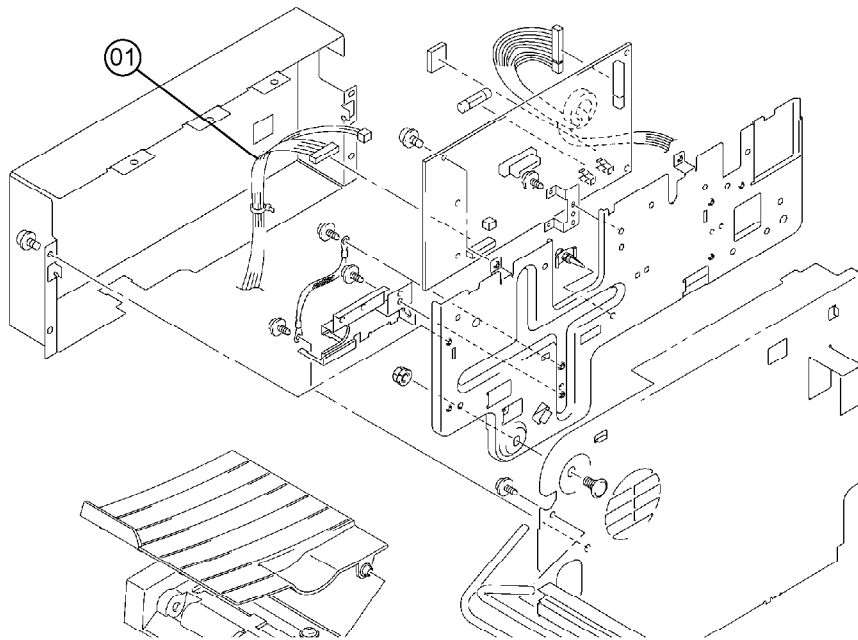
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020360  
 DATE : 2002/05/14  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 023

MODEL NAME : Di151  
 SUBJECT : INFORMATION FOR PARTS NUMBER  
 KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Harness Assy (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	04	19		4007-6822-01	1	Y	WIRE HARNESS ASSY	AFTER
000									

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "S/FIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020516

DATE : 2002/07/09

MODEL NAME : Di151

MODEL CODE : 4007

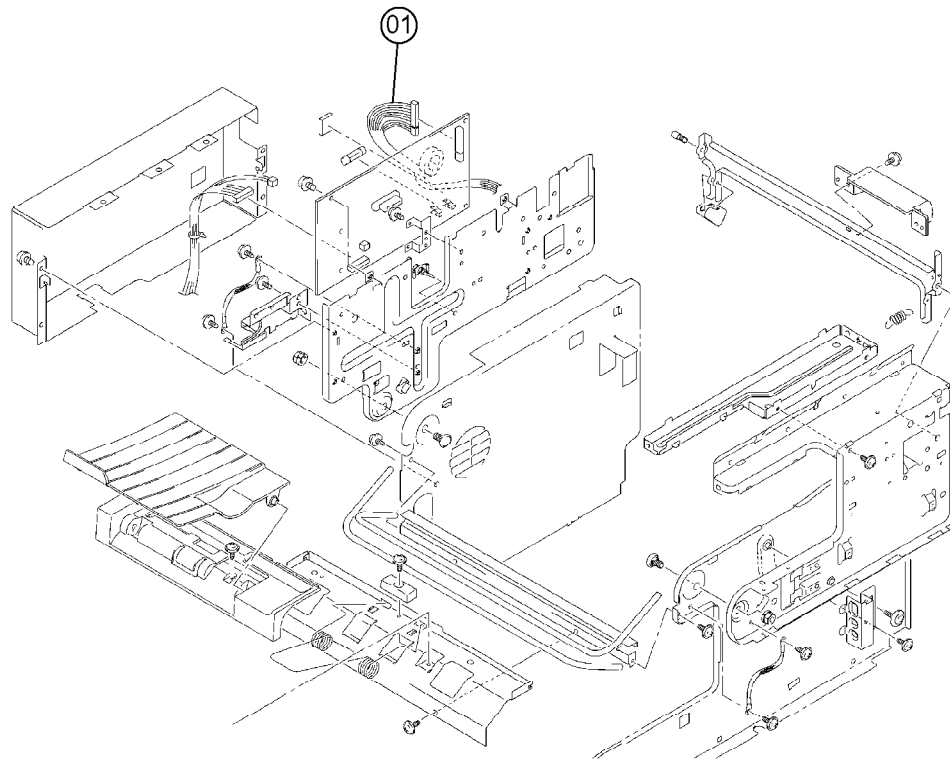
PMN NO. : 024

MODFI NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Wire Harness Assy (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	04	20		4007-6823-03	1	Y	WIRE HARNESS ASSY 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

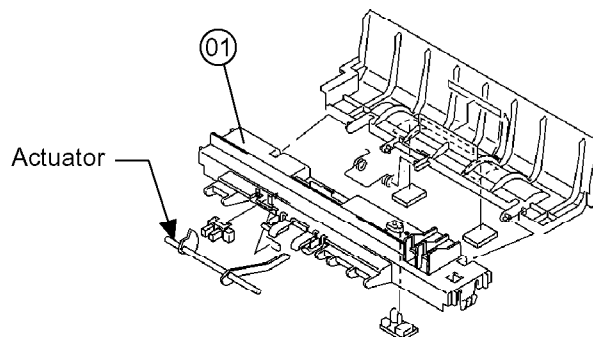


# PARTS MODIFICATION NOTICE

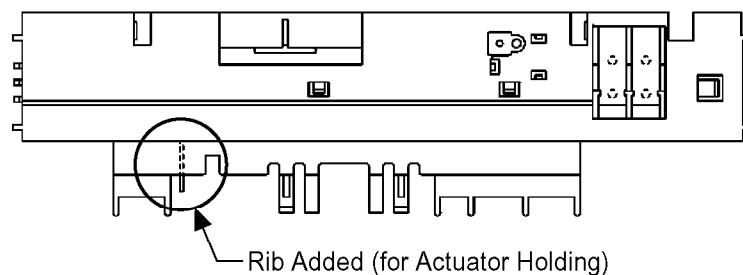
REF NO. : MO020600  
 DATE : 2002/08/19  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 025

MODFI NAME : Di151  
 SUBJECT : SHAPE OF COVER CHANGE  
 KB NO. : - - - - -

Due to prevent actuator from coming off, the shape of the Cover (01) has been changed.



① View From Upper Side



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	08	08	4110-2013-15	4110-2013-16	1	1	Y COVER 000	N/A

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020635

DATE : 2002/08/20

MODEL NAME : Di151

MODEL CODE : 4007

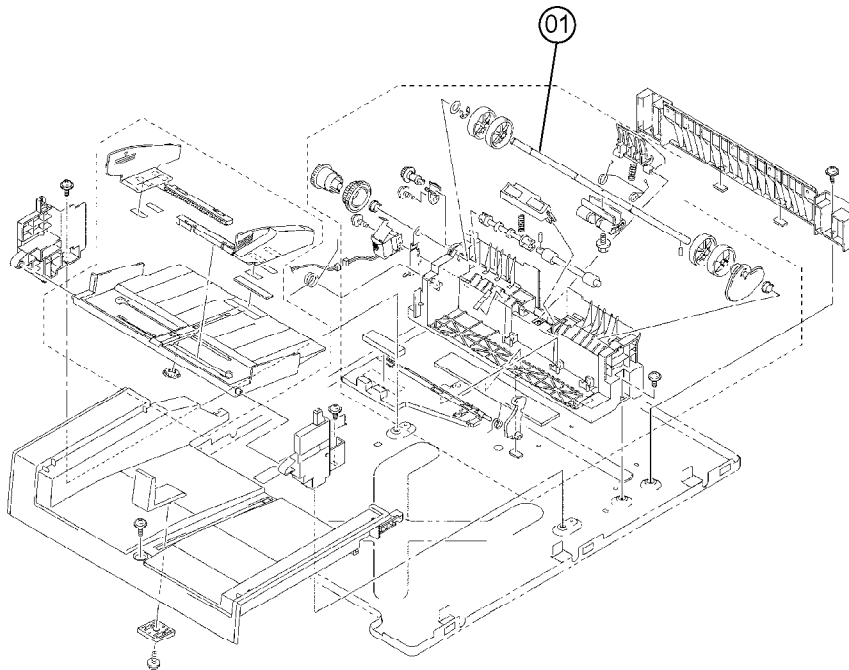
PMN NO. : 026

MODFI NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Shaft (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	09	42		4007-3029-02	1	Y	SHAFT 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

## PARTS MODIFICATION NOTICE

REF NO. : MO020764

DATE : 2002/09/13

MODEL NAME : Di151

MODEL CODE : 4007

PMN NO. : 027

REVISED EDITION

MODFI NAME : Di151 (~~PH1501~~)

SUBJECT : INFORMATION FOR PARTS NUMBER

KB NO. : -----

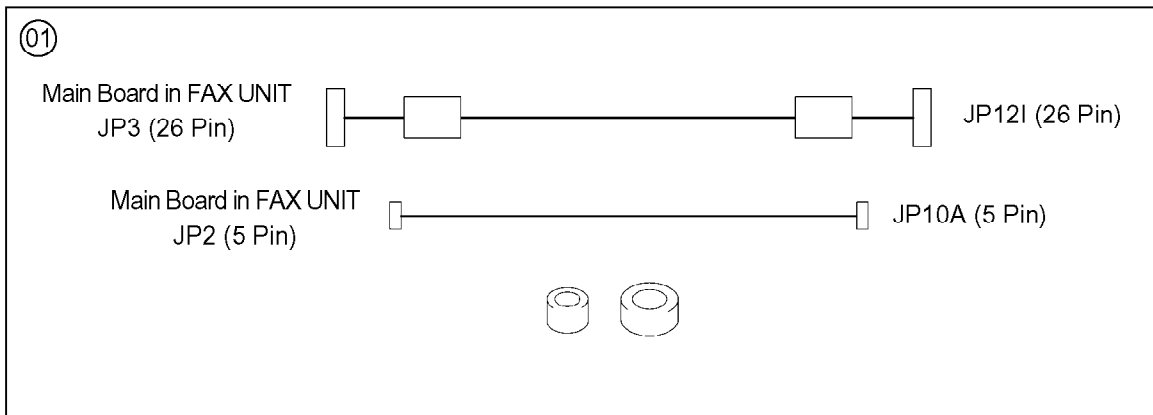
FAX UNIT

FAX UNIT

DELETE

Due to a request from the field, the Harness (01) connecting ~~PH1501~~ Main Board with Di151 PWB-L has been newly assigned as a field replaceable unit.

CORRECT



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01				4647-1142-01	1	Y	HARNESS 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO020984

DATE : 2002/11/08

MODEL NAME : Di151

MODEL CODE : 4007

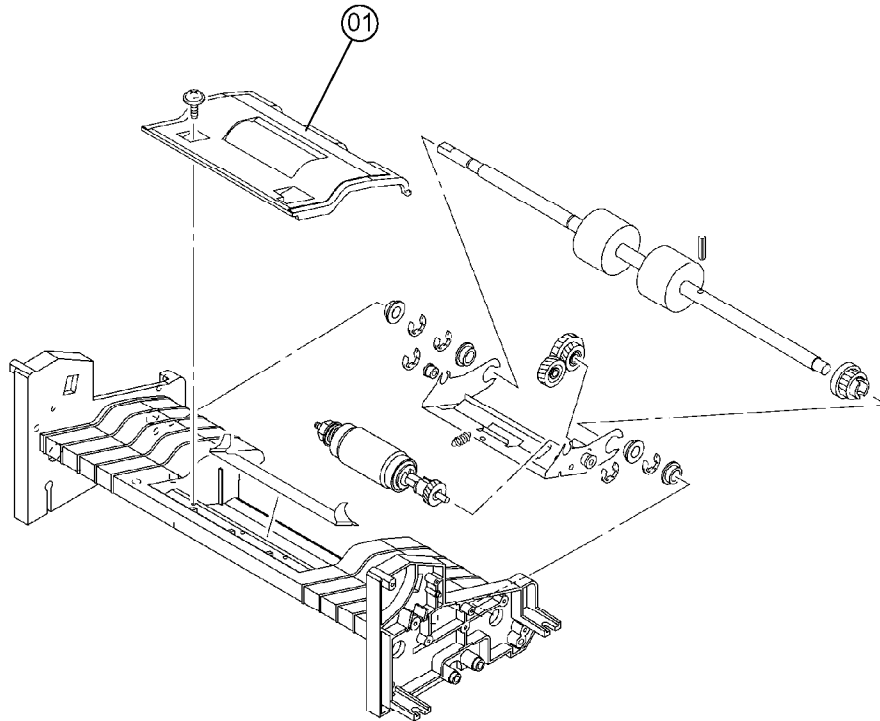
PMN NO. : 028

MODFI NAME : Di151 (AF-8)

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Cover (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	14	27		4647-1143-01	1	Y	COVER 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO021086  
DATE : 2002/12/09  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 029

MODFI NAME : Di151  
SUBJECT : PAPER TAKE-UP UNIT CHANGE (PAPER TAKE-UP SECTION)  
KB NO. : - - - - -

Because of the change in REF NO.:MO010002 (TORSION SPRING CHANGE), the part number for the Paper Take-Up Unit (01) has been changed.

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	09	38	4007-0321-02	4007-0321-05	1 1	Y	PAPER TAKE-UP UNIT 000	XX010460

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

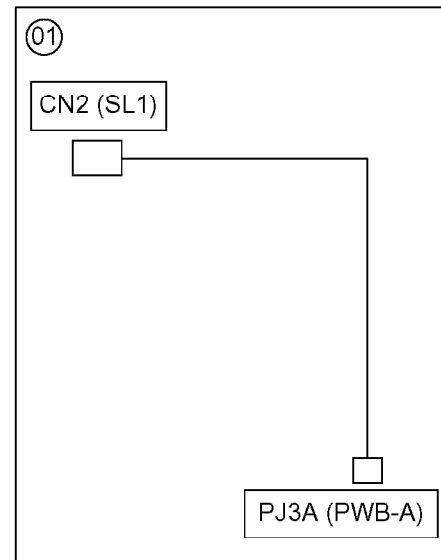
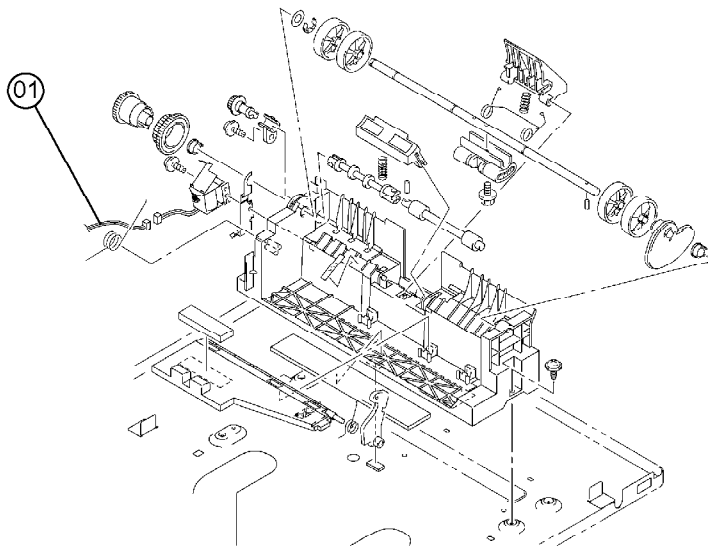
REF NO. : MO030024  
 DATE : 2003/01/07  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 030

MODFI NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Wire Harness Assy (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY	I	PART NAME	SE/NO.
4007	01	09	43		4007-6804-01	1	Y	WIRE HARNESS ASSY	AFTER
000									

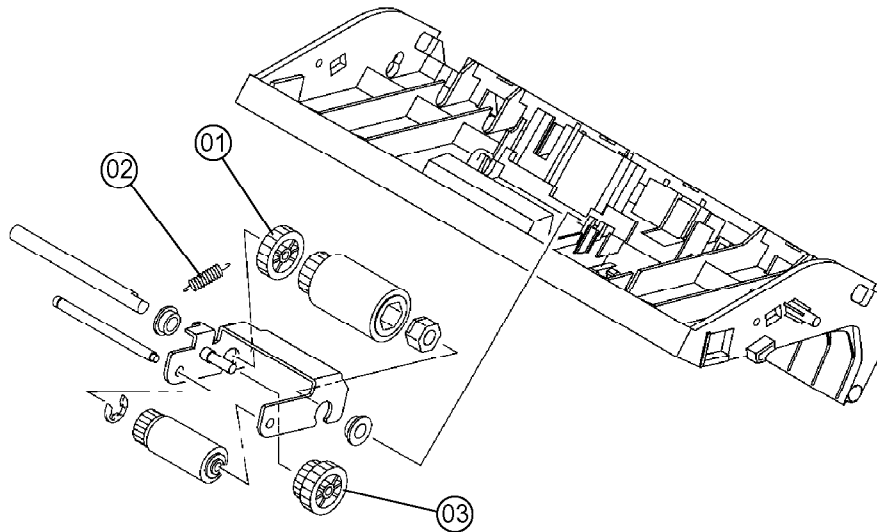
The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
 The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
 The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030072  
 DATE : 2003/01/07  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 031

MODFI NAME : Di151 (AF-8)  
 SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)  
 KB NO. : - - - - -

Due to a request from the field, a part number have been newly made for the Gear (01,03) and Tension Spring (02) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	19		4647-1144-01	1	Y	GEAR 000	AFTER
4007	02	13	20		4647-1145-01	1	Y	TENSION SPRING 000	AFTER
4007	03	13	21		4647-1146-01	1	Y	GEAR 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

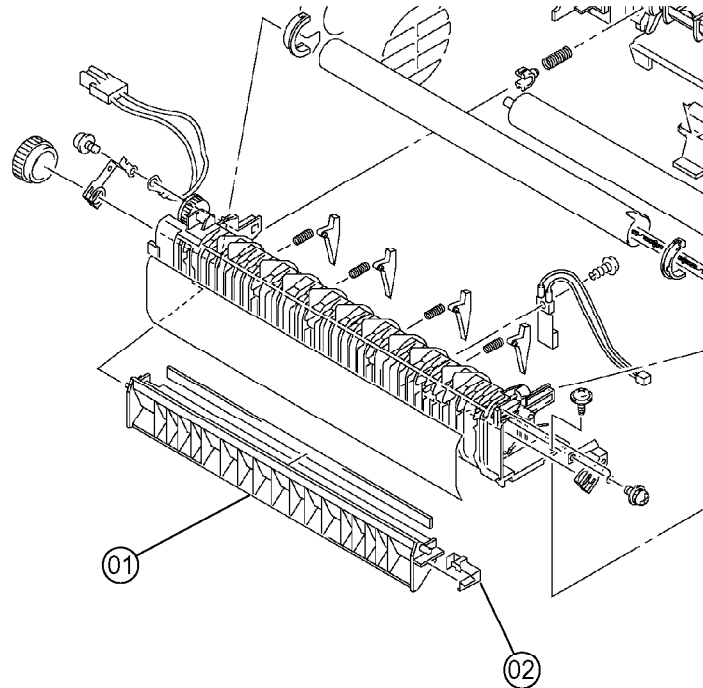
REF NO. : MO030239  
 DATE : 2003/02/17  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 032

MODFI NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER (FUSING UNIT)

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the following items (01, 02) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	07	25		4110-5503-14	1	Y	GUIDE 000	AFTER
4007	02	07	26		4110-5539-01	1	Y	CONTACT 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.



# PARTS MODIFICATION NOTICE

REF NO. : MO030250  
 DATE : 2003/02/17  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 033

MODFI NAMF : Di151  
 SUBJECT : CORRECTION FOR PMN (REF NO. MO010304)  
 KB NO. : - - - - -

In the PMN Ref. No. MO010304, PART NUMBER OF ONE-WAY CLUTCH had some errors in writing. Please correct them as follows.

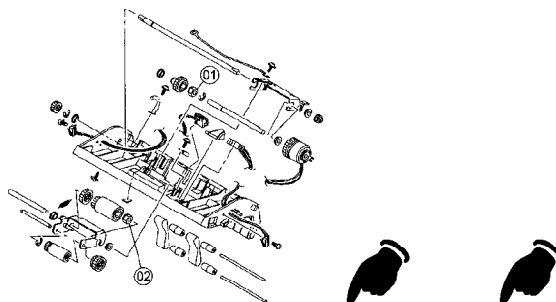
PMN REF No. MO010304

MINOLTA CO., LTD., SERVICE ENGINEERING DIVISION  
 PAGE NO. : 1/1

## PARTS MODIFICATION NOTICE

REF NO. : MO010304  
 DATE : 2001/07/03  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 012

MODEL NAME : Di151 (AF-8)  
 SUBJECT : PART NUMBER OF ONE-WAY CLUTCH  
 KB NO. : - - - - -



4272-1077-01

BUSHING

MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY	I	PART NAME SFIX	SE/NO
4007	01	13	12		4007-1112-01	1	Y	ONE-WAY CLUTCH 000	AFTER
4007	02	13	13		4007-1112-01	1	Y	ONE-WAY CLUTCH 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

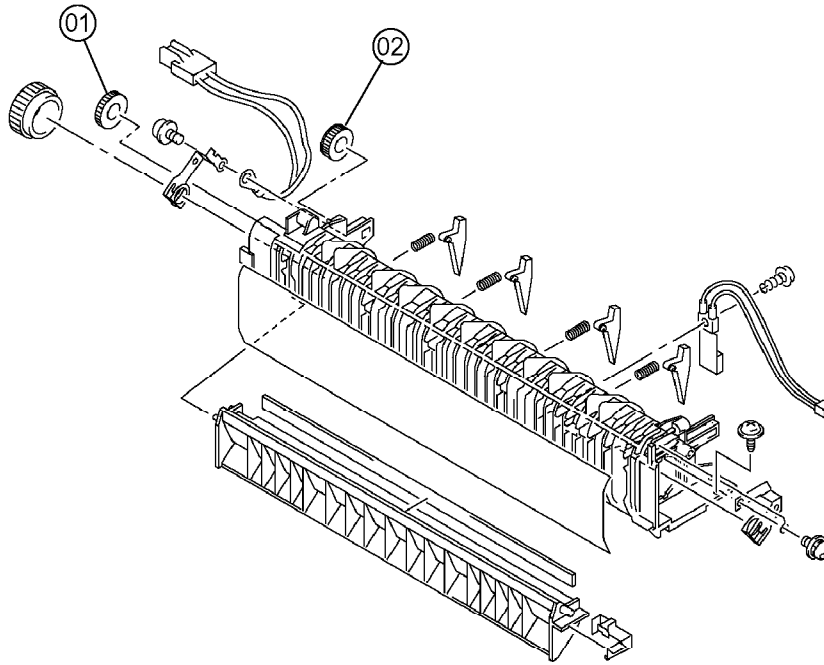
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030252  
 DATE : 2003/02/17  
 MODEL NAME : Di151  
 MODEL CODE : 4007  
 PMN NO. : 034

MODEL NAME : Di151  
 SUBJECT : INFORMATION FOR PARTS NUMBER (FUSING UNIT)  
 KB NO. : -----

Due to a request from the field, a part number has been newly made for the Gears (01, 02) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	07	27		4109-5513-01	1	Y	GEAR 000	AFTER
4007	02	07	28		4109-5514-01	1	Y	GEAR 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030254

DATE : 2003/02/17

MODEL NAME : Di151

MODEL CODE : 4007

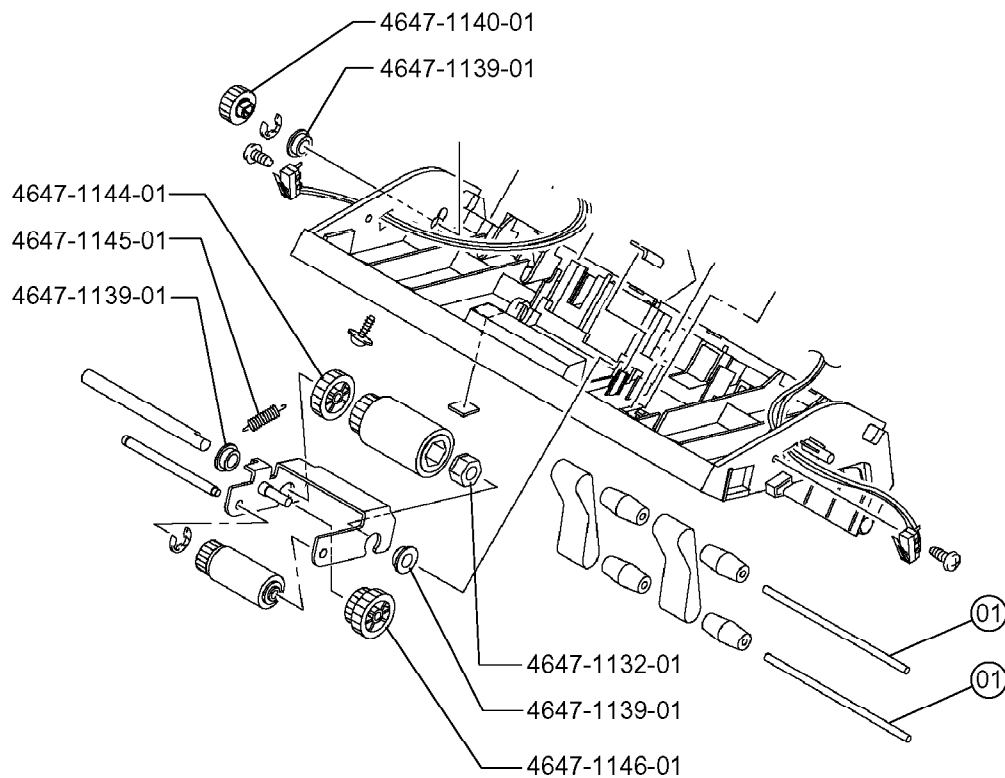
PMN NO. : 035

MODFI NAME : Di151 (AF-8)

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Shaft (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	22		4647-1147-01	2	Y	SHAFT 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030312

DATE : 2003/03/04

MODEL NAME : Di151

MODEL CODE : 4007

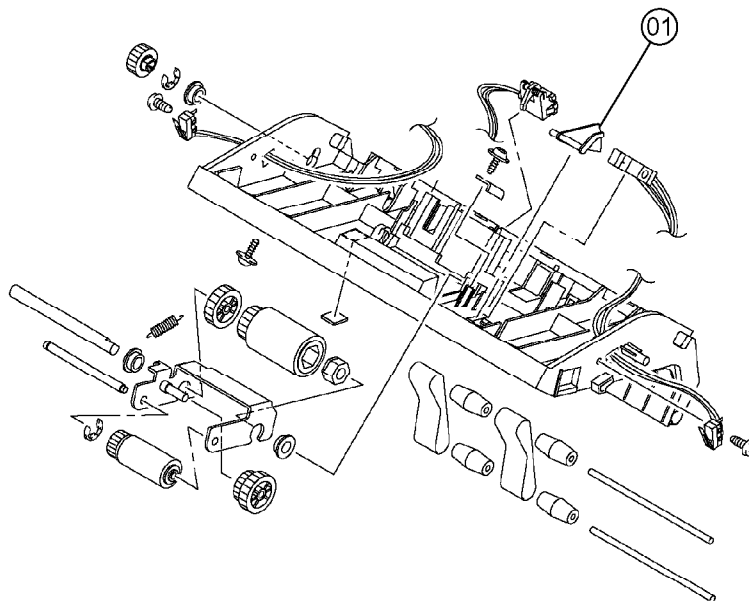
PMN NO. : 036

MODFI NAMF : Di151 (AF-8)

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : - - - - -

Due to a request from the field, a part number has been newly made for the Actuator (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME SFIX	SE/NO.
4007	01	13	23		4647-1148-01	1	Y	ACTUATOR 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030578

DATE : 2003/05/07

MODEL NAME : Di151

MODEL CODE : 4007

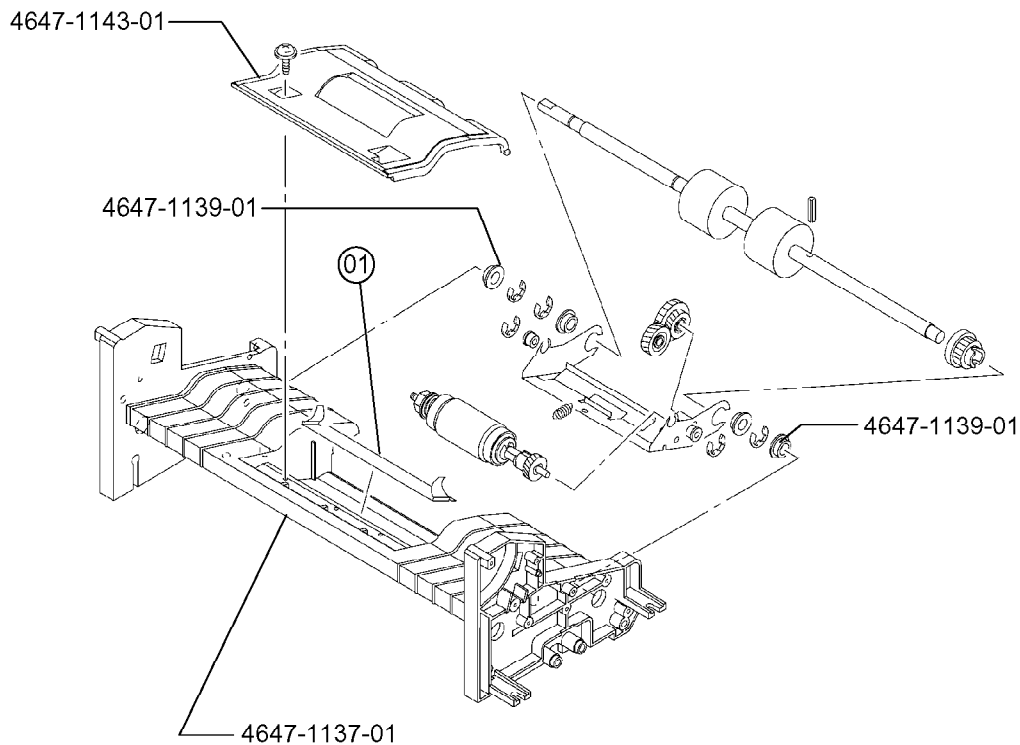
PMN NO. : 037

MODEL NAME : Di151 (AF-8)

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : -----

Due to a request from the field, a part number has been newly made for the Plate Spring (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	14	28		4647-1149-01	1	Y	SPRING	AFTER
								000	

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

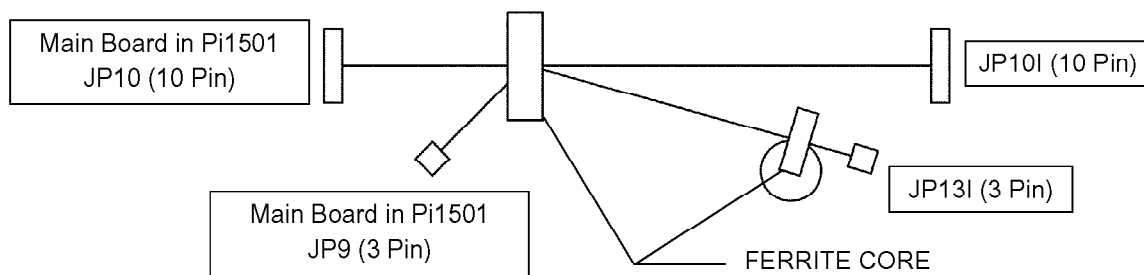
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030629  
DATE : 2003/05/21  
MODEL NAME : Di151  
MODEL CODE : 4007  
PMN NO. : 038

MODFI NAME : Di151 (Pi1501)  
SUBJECT : INFORMATION FOR PARTS NUMBER  
KB NO. : - - - - -

Due to a request from the field, the Harness (01) connecting Pi1501 Main Board with Di151 PWB-I has been newly assigned as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01				4647-1150-01	1	Y	HARNESS 000	AFTER

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.  
The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.  
The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

# PARTS MODIFICATION NOTICE

REF NO. : MO030659

DATE : 2003/05/28

MODEL NAME : Di151

MODEL CODE : 4007

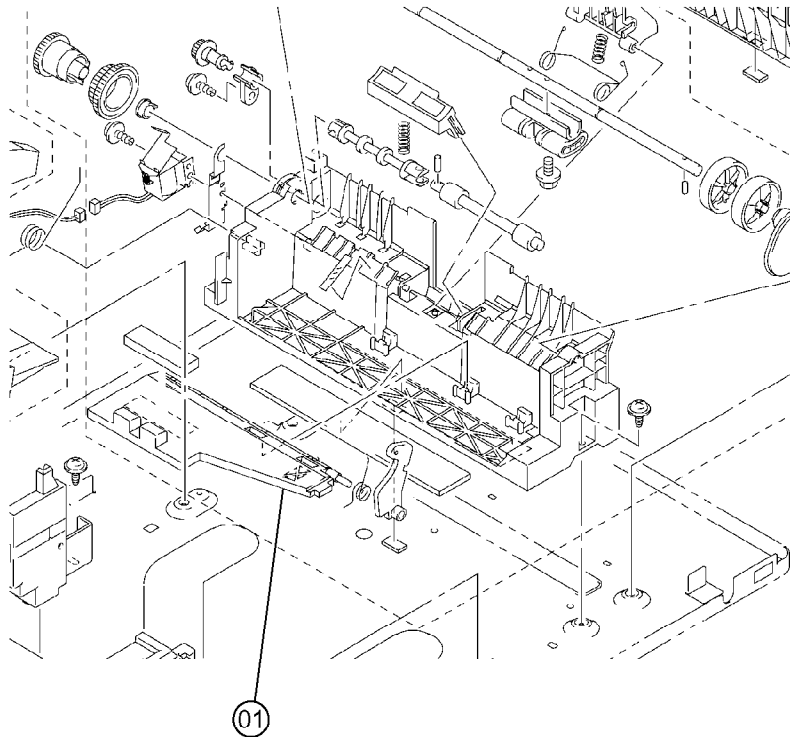
PMN NO. : 039

MODEL NAME : Di151

SUBJECT : INFORMATION FOR PARTS NUMBER (PAPER TAKE-UP SECTION)

KB NO. : -----

Due to a request from the field, a part number has been newly made for the Lever (01) to supply as a field replaceable unit.



MODEL CODE	NO.	FIG	IND	BEFORE MODI. P/NO.	AFTER MODI. P/NO.	QTY →	I	PART NAME	SE/NO.
4007	01	09	44		4110-3043-01	1	Y	LEVER	AFTER
								000	

The "I" (Interchangeability) column indicates whether a modified part can be installed in pre-modification machine. If a "Y" is listed under the "I" column, a part under "AFTER MODI. P/NO." column can be installed in pre-modification machine and the machine functions properly. If a "S" is listed, there is a new part which is used with the modified part as a set. The set can be installed in pre-modification machine and the machine functions properly. If a "N" is listed, the modified part cannot be installed in pre-modification machine. Even though the modified part could be installed in the machine physically, it would not function properly.

The "SE/No." column indicates a serial No. and the following 5 meanings. 1. "Blank" shows that there is no modification. (A revised version will be followed as soon as a serial No. is confirmed.) 2. "\*" shows that a modification has been done. (See the above section for the details.) 3. "N/A" shows that a modification has been done. (The serial No. can not be confirmed.) 4. "AFTER" shows parts which are not used in the production line but used only as the spare parts. 5. "DISCON" shows that the model has been discontinued for the production.

The "SFIX" column indicates the area codes (the last three numbers on the item code). The area code "000" means the part can be used in all areas.

## Knowledge Data Base ( KDB No.: KB0000215 / Status: Close )

\*\*\* PMN \*\*\*

Model:

Di151

Problem Machine:

Di151

Title:

Modified firmware version 1.10

Symptom:

Control / Others(Condition Monitor)

Symptom Explanation:

Initial firmware version 1.00 of main unit has not supported Printer kit Pi1501

Temporary Measure:

As a temporary action, for only 2310 machines of Printer Kit Pi1501 initially shipped, the modified firmware version 1.10 has been packed with the Kit. Please load this firmware into the main unit when installing the Printer Kit.

The outer boxes of the Printer Kits involving a modified firmware have 2 yellow tags around their bar codes.

CounterMeasure:

The modified firmware version 1.10 has been loaded into the main unit in order to support Printer

Kit Pi1501.

Load the firmware version 1.10 into the main unit when installing the Printer kit Pi1501.

Previous firmware version	Previous part number	New firmware version
New part number		
Version 1.00	4007-6601-02	Version 1.10
4007-6601-03		

Effective serial number : XX005585 and onwards

Cause:

Because of the delay in the development of the Printer kit Pi1501, the firmware version 1.00

loaded in the initial Di151s could not designed to support the Pi1501.

The outer boxes of the Di151s have 2 yellow tags around their bar codes in order to show

that the units inside have loaded the firmware not supporting Pi1501.

Number of the Di151s with the tags : 3440 machines

Problem Rank:

C

Check

Parts Modification Notice:

Ref . No . : MO000817

Link to related "PMN "

SW/FW Distribution:



---

Category:  
PPC\Digital-B/W  
Expand Machine:  
D1530iD(Main Unit)  
Di151(Main Unit)  
Cause Area:  
Firmware  
Original Report:  
Information Date:  
05.12.2000  
Edit Date:  
05.12.2000  
Created by:  
masaru maeda/minolta

## Supplemental Technical Information

for Parts Modification Notice ( KDB No.: KB0000215 )

Model	Area
Di151	Firmware

### Symptom

Modified firmware version 1.10

### Description

Initial firmware version 1.00 of main unit has not supported Printer kit Pi1501.

### Countermeasure

The modified firmware version 1.10 has been loaded into the main unit in order to support Printer Kit Pi1501.

Load the firmware version 1.10 into the main unit when installing the Printer kit Pi1501.

### Cause

Because of the delay in the development of the Printer kit Pi1501, the firmware version 1.00 loaded in the initial Di151s could not designed to support the Pi1501.

The outer boxes of the Di151s have 2 yellow tags around their bar codes in order to show that the units inside have loaded the firmware not supporting Pi1501.

### Parts Modification Notice

MO000817

### Related Product Model

D1530iD

Di151

## Knowledge Data Base ( KDB No.: KB0000216 / Status: Close )

\*\*\* PMN \*\*\*

Model:

Di151

Problem Machine:

Di151

Title:

Modified firmware version 1.30

Symptom:

Others / Others(Others)

Symptom Explanation:

- 1.Size error "H2" is indicated on the screen though the machine feeds and copies B6 paper from Bypass under the selection of "B6" paper for Bypass.
- 2.Background density becomes grayish on the copy at the "darker" level under 2in1 copy.
- 3.With Printer Kit Pi1501, if a job is canceled by pressing the "Cancel/Stop" key of main unit multiple times while the job is being printed, the machine will not receive a new job from PC.
- 4.Light image density problem occurs when making a copy of particular originals under Auto Exposure mode.

Temporary Measure:

CounterMeasure:

The modified firmware version 1.30 resolves the above mentioned firmware bugs (1, 2, 3). Furthermore, the firmware is effective for "4", because the machine samples not only a narrow area around the leading edge but also a wider range and this prevents the improper detection of the image density. At the same time "AD" and "AE" functions which adjust image density have been also added to the Tech. Rep. Mode.  
AD : Adjust for Auto Density (Setting : 0(Default) 1)  
AE : Adjust for Manual Density (Setting : 0(Default) 1, 2)

Previous F/W version New P/N	Previous P/N		New F/W version
Version 1.10 4007-6601-04	4007-6601-03	--->	Version 1.30

Effective serial number : XX025286 and onwards

Cause:

- 1.firmware bug
- 2.firmware bug
- 3.firmware bug
- 4.The machine samples a very narrow area, approx. 5-10mm area from

the leading edge  
to decide the image density for copying under the previous Auto  
Exposure mode.  
Accordingly, light copies are produced in the case of particular originals  
with some lines  
around the leading edge.

Problem Rank:

**C**

[Check](#)

Parts Modification Notice:

Ref . No . :MO000831

[Link to related "PMN "](#)

SW/FW Distribution:

---

Category:

PPC\Digital-B/W

Expand Machine:

D1530iD(Main Unit)

Di151(Main Unit)

Cause Area:

Firmware

Original Report:

Information Date:

05.12.2000

Edit Date:

05.12.2000

Created by:

masaru maeda/minolta

## Supplemental Technical Information

for Parts Modification Notice ( KDB No.: KB0000216 )

Model	Area
Di151	Firmware

### Symptom

Modified firmware version 1.30

### Description

- 1.Size error "H2" is indicated on the screen though the machine feeds and copies B6 paper from Bypass under the selection of "B6" paper for Bypass.
- 2.Background density becomes grayish on the copy at the "darker" level under 2in1 copy.
- 3.With Printer Kit Pi1501, if a job is canceled by pressing the "Cancel/Stop" key of main unit multiple times while the job is being printed, the machine will not receive a new job from PC.
- 4.Light image density problem occurs when making a copy of particular originals under Auto Exposure mode.

### Countermeasure

The modified firmware version 1.30 resolves the above mentioned firmware bugs (1, 2, 3). Furthermore, the firmware is effective for "4", because the machine samples not only a narrow area around the leading edge but also a wider range and this prevents the improper detection of the image density.

At the same time "AD" and "ME" functions which adjust image density have been also added to the Tech. Rep. Mode.

AD : Adjust for Auto Density (Setting : 0(Default) 1)

AE : Adjust for Manual Density (Setting : 0(Default) 1, 2)

### Cause

- 1.firmware bug
- 2.firmware bug
- 3.firmware bug
- 4.The machine samples a very narrow area, approx. 5-10mm area from the leading edge to decide the image density for copying under the previous Auto Exposure mode.  
Accordingly, light copies are produced in the case of particular originals with some lines around the leading edge.

### Parts Modification Notice

MO000831

### Related Product Model

D1530iD

Di151

## Knowledge Data Base ( KDB No.: KB0000222 / Status: Close )

\*\*\* PMN \*\*\*

Model:

Di151

Problem Machine:

Di151

Title:

Occasional Paper jam

Symptom:

Paper Transport / Mis-feed at Paper Take-Up Section

Symptom Explanation:

Jam may occur due to the Paper Take-Up Roller not turning while a large amount of paper are being copied.

Temporary Measure:

CounterMeasure:

The tension of the Torsion Spring has been increased by changing the shape of the Spring.

Part name	Previous type	New type
Torsion Spring	4110-3019-01	4007-3019-01
Paper Take-up Unit	4007-0321-02	4007-0321-04

Effective serial number : xx010460 and onwards



Modification parts.pdf

Cause:

Because of the insufficient tension of the Torsion Spring (#4110-3019-01), the Paper Take-Up

Drive Gear (#4110-3010-02) cannot be pushed by proper strength.

As a result Jam may occur because the drive from the main motor is not properly transmitted to the Gear and the Roller does not turn.

Problem Rank:

C

[Check](#)

Parts Modification Notice:

Ref . No. :

SW/FW Distribution:

Category:

PPC\Digital-B/W

Expand Machine:

D1530iD(Main Unit)

Di151(Main Unit)

Cause Area:

Paper Feeding

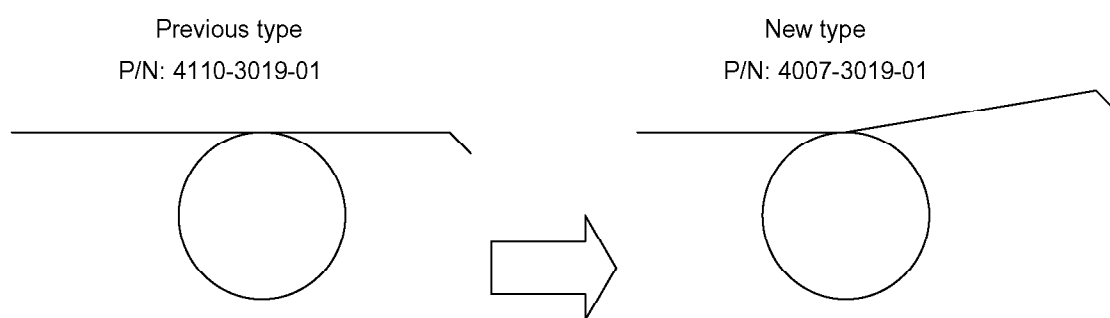
Original Report:

Information Date:

26.12.2000

Edit Date: 28.12.2000  
Created by: masaru maeda/minolta

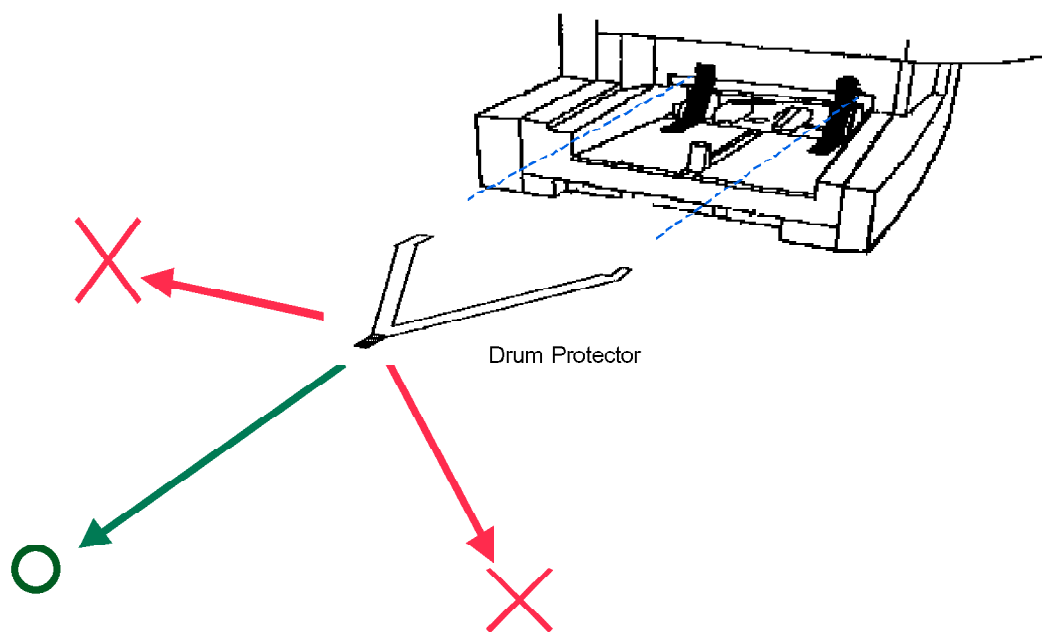
## Modification Parts





## Di151 PC Drum Protector Pull out Instruction

Please pull out the Drum Protector in vertical direction against the machine, as the below green arrow shows, at the unpacking/set-up.



**\*Note:** If the Drum Protector is pulled out inappropriately, as the above red arrows show, the Actuator, that is a necessary item for the "Paper Empty Detection" of Universal Tray, will be pushed away. As a result the "Paper Empty Detection" may not be conducted.

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000665

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Black Line/Color Line, Bands in Feeding**

Category : **Direction**

SW Ver : v1.00

Symptom : Black streaks are reproduced when AF-8 is used.

Description : When an original smaller than the selected paper size is copied with the AF-8, black streaks are reproduced at the area outside the image of the original.

Condition : Location : Optional Paper Feed

Note : Since AF-8 does not have Original Size Detecting Function, the Di151 scans according to the selected paper size.

Service Type  
(Recommendation  
) :

Countermeasure : Make a copy, placing an original on the Original Glass, not on AF-8.  
Auto Exposure Mode is recommended when AF-8 is used.  
Clean AF-8 White Roller when it has been smeared.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\* \* \* Partner Use \* \* \*

Document # : SED-KB-000666

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Light Image/Color Light Image**

Category :

SW Ver : v1.00

Symptom : Halftone areas of originals are reproduced with Moire effect.

Description : For catalogs or originals with the photos, low-density halftone areas are reproduced with Moire patterns in the text mode.

Condition : Others : character mode

Note : Digital Moire.

because of edge enhancement in the text mode, Moire effect is reproduced on the copy of originals with certain intervals of halftone images.

Service Type  
(Recommendation  
) :

Countermeasure : Photo Mode is recommended.

This symptom is alleviated by a slight adjustment of Zoom ratio.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000667

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Light Image/Color Light Image**  
Category :

SW Ver : v1.00

Symptom : Unable to print light-color lines on originals.

Description : Some colored thin lines on low-density originals cannot be printed even if the density of the copy is increased to the maximum level in the Manual Exposure Mode. Even at the darkest level, background density does not become grayish on the copy.

Condition :

Note : <Cause>

Adjustable range for increasing the copy density against original low-density areas is narrow.

<Countermeasures>

Firmware change has been included in the modified ROM to support Printer kits.

If the density is increased to the maximum level, the background density becomes grayish on the copy.

\*Example:

In version 1.00 density gradation can be recognized between 1 and 6 on the gray-scale of test Chart No.GTC-003-10.However in version 1.10 the gradation can be recognized only between 1 and 4.

Service Type  
(Recommendation  
) :

Countermeasure : Replace the ROMs with the modified ones.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000668

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Black Line/Color Line, Bands in Cross**

Category : **Direction**

SW Ver : v1.00

Symptom : White Lines are reproduced in the Crosswise Direction at 5mm areas from the leading edge.

Description : When an original with solid black areas at the leading edge is copied in Auto Exposure Mode, white lines are reproduced in the crosswise direction at 5mm area from the leading edge.

Condition : Others : Auto Exposure Mode

Note : White lines are not reproduced in Manual Exposure/Photo Mode.

Service Type  
(Recommendation  
) :

Countermeasure : Turn the original 180 degrees to change the direction of the originals.  
Copying in Manual Exposure Mode or Photo Mode is recommended.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000669

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Trouble Code/Main Drive**

Category :

SW Ver : v1.00

Symptom : Trouble code "C14A3" appears.

Description : When opening AF-8 just before the last page of originals has been completely fed out, "C14A3" appears.

Condition : Location : Auto Document Feeder

Note :

Service Type  
(Recommendation  
) :

Countermeasure : Turn the machine off and then on again.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000670

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Others/Others**

Category :

SW Ver : v1.00

Symptom : Panel hangs up.

Description : 1.Place originals on AF-8 and select Manual Bypass Tray (No paper on Manual Bypass Tray.)  
2.Original JAM at AF-8 occurs.  
3.Paper is fed from Universal Tray.  
4."J8" (Original JAM) indicator appears.  
5.After the removal of a misfed original, Panel hangs up.

Condition : Location : Operation Panel

Others : Auto Document Feeder

Note : There are few chances that the original jam occurs in combination with the AF-8 and manual bypass copying in the fields,. Turning the machine OFF-ON clears the symptom.

Service Type  
(Recommendation  
) :

Countermeasure : Turn the machine off and then on again.  
Open/Close AF-8 ADF Cover.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000671

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

SW Ver : v1.00

Symptom : Unable to reset AF-8 JAM indicator "J8".

Description : "J8" is indicated on the display in approx. 20 seconds after AF-8 original JAM (J8) and Paper Empty have occurred at the same time. The "J8" cannot be cleared by removing Original JAM and resetting (opening/closing AF-8).

Condition : Location : Auto Document Feeder

Note : There are few chances that Original Jam(J8) and paper empty occur at the same time.

Service Type  
(Recommendation  
) :

Countermeasure : Turn the machine off and then on again.

This symptom No  
fixed/Not by  
SWFW:



# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000672

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Black Line/Color Line, Bands in Feeding**

Category : **Direction**

SW Ver : v1.00

Symptom : Black streaks on the latter half of the images at the trailing edge side.

Description : 1.Use AF-8  
2.Zoom ratio : 199%  
3.Sort copy(Number of copies: multiple copies programmed)  
In the above setting, black streaks are produced on the latter half of the images at the trailing edge side

Condition : Location : Auto Document Feeder

Others : Sort Mode

Note :

Service Type  
(Recommendation  
) :

Countermeasure : Solution is available with ROM Ver.1.10

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000673

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Others/Others**

Category :

SW Ver : v1.00

Symptom : Function LED goes off.

Description : With the Function LED lit (Sort/2 in 1Mode) if you enter User's Choice Mode, register the selected setting and then return to the previous status mode, the Function LED will go off.

However , even under such conditions , the function works correctly.

Condition : Location : Operation Panel

Note : This occurs with the indicator only. There is no problem with the function.

Service Type  
(Recommendation  
) :

Countermeasure : If you set and change the items in User's Choice Settings during the selection of Function Mode (Sort/ 2 in 1) , Function LED will go off, but there is no problem with the function.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000674

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Others/Others**

Category :

SW Ver : v1.00

Symptom : Warm-up time takes long.

Description : There is a possibility that Warm-up may take longer than the time described in the product brochure.

Condition :

Note : Product brochure says that it takes 28 seconds or less for the copier to complete warm up. This warm up time has been measured by turning the copier OFF and then ON with Exposure Lamp OFF. With the Exposure lamp ON if the power turned OFF and then ON, it takes approx. 33 seconds.

Service Type  
(Recommendation  
) :

Countermeasure :

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000675

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Others/Others**

Category :

SW Ver : v1.00

Symptom : First copy takes long.

Description : There is a possibility that First Copy time may take longer than the length of time mentioned in the product brochure.

Especially when the AF-8 is used, it takes about 10 seconds for the originals to be fed in

at the longest after the Start Key has been depressed.

Condition :

Note : First copy time is mentioned in the product brochure as follows:

-Placing originals on the Original Glass :

11 seconds or less

Using AF-8 :

15 seconds or less

This length of time in the brochure is measured with the Exposure Lamp ON, It takes approx. 26 seconds in case that the Lamp is OFF.

Service Type  
(Recommendation  
) :

Countermeasure : None

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000676

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Hardware//**

Symptom **Malfunction/Function failure**

Category :

Symptom : "Paper Empty Indication" does not appear during the setting up

Description : At the production side, a PC Drum Protector is provided for each machine to keep a certain space between the I/C (PC Drum) and the Image Transfer Roller. At the unpacking/set-up, the PC Drum Protector may attach to the Actuator, and then it will be pushed away from its correct position by the inappropriate handling for the PC Drum protector.  
The Actuator is a necessary item for "Paper Empty Detection" of Universal Tray. Thus, as a result, not the "Paper Empty Indication" but "Ready" may appear on the LCD even the Universal Tray is empty.  
If you press the Start Key under this condition, the indication of "PC Jam" would appear.

Condition : Location : Paper Feed

Note : Please follow the directions how to remove the PC Drum Protector in the Set-up Instruction during unpacking/set-up.



Service Type  
(Recommendation  
) :

Countermeasure : The shape of PC Drum Protector has been modified as a measure for this matter.

### <Effective S/No.>

#4007-211	For ME field	21005435 and onward
#4007-212	For Other Field	21003522 and onward
#4007-215	For Develop Gmbh	21004050 and onward
#4007-311	For MC field	31005986 and onward
#4007-711	For Saudi Arabia field	71005228 and onward

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000677

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Others/Others**

Category :

SW Ver : v1.10

Symptom : A blank copy is produced with "F4" in Tech. Rep. Mode

Description : A blank copy is produced with "F4" (Continue Copy for Scanner) in Tech. Rep. Mode.

Condition :

Note : This has been left as is because this "F4" Mode is not used by users.  
Ver.1.00 also has the same symptom.

Service Type  
(Recommendation  
) :

Countermeasure : Check to see if the Scanner and engine function correctly in the normal copy mode, not with "F4".

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000678

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Input/Output Quality/Blank Page**

Category :

SW Ver : v1.10

Symptom : A copy with an image is produced with "F1" in Tech. Rep. Mode

Description : When the Start key is pressed with "F1" (Paper Passage Test for Printer) just after a print job has been sent from PC, the last job sent from PC is printed out instead of a copy without any images.

Condition :

Note : This has been left as is because this "F1" Mode is not used by users.

Service Type  
(Recommendation  
) :

Countermeasure : Turning the power switch OFF-ON resets the machine.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000679

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : Firmware/Engine Firmware/

Symptom No print/Print Job stuck

Category :

SW Ver : v1.10

Symptom : Just after a print job from PC has been cancelled, if a new job is sent, the canceled images are printed on the images of the new job.

Description : 1. A print job with a large amount of image data is sent (containing multiple pages with graphic images).  
2. The job is cancelled in the Print Folder while the job is being printed.  
3. A new print job is sent.  
4. Images of the cancelled job are duplicated on the first copy of the new job.  
(After the second copy, the images are not duplicated.)

Condition :

Note : \*It takes about 2minutes for part of the cancelled job left in the machine to be printed out .

\*When NIC is used, the job left in the Machine is printed out in 30 seconds after the job has been cancelled.

Service Type  
(Recommendation  
) :

Countermeasure : When a print job is cancelled in Printer Folder from PC, it is also necessary to clear the job with the C/S key of the Machine.  
A part of the cancelled job left in the Machine can be cleared by pressing the C/S key.

This symptom No  
fixed/Not by  
SWFW:



# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000680

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

SW Ver : v1.10

Symptom : Auto Tray Switching function does not work if a print job is sent from PC.

Description : Machine setting

\*UA=3 (Paper Tray + Auto Tray Switching)

\*UC=3 (PF-116 is prioritized)

\*PF-116 : Paper Empty

When a print job is sent from PC under the above situation, the indicator showing data receiving condition changes from "1" to "0" and ends up with indication of "00".

The "00" indication shows the Machine is at standby, but paper empty condition is not indicated.

Condition :

Note : User's Choice "UC" :

This is for Tray Priority (for Printer Mode) setting. Due to the selection of Code "3", the Machine enters standby in case that PF-116 is empty with paper.

If, however, Code "1", Auto Select Mode, is selected, the Machine will make copies taking up paper loaded in the Paper Tray although PF-116 is empty with paper. Since in this case Code "3" is also selected for "UA" and papers are loaded in the Paper Tray, paper empty condition is not indicated.

Service Type  
(Recommendation  
) :

Countermeasure : If the indicator is kept unchanged indicating "00" (on standby) for a print job from PC, please check to see if the papers are in PF-116. This is because there is a possibility that no paper are in the PF-116.

If no papers are in the PF106, replenish papers in the PF-116.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000681

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

SW Ver : v1.10

Symptom : Print jobs are not saved in the Machine's memory.

Description : Copier Mode:

When Exit Paper JAM (J3) occurs while the letter size original is being printed onto legal paper with AF-8, "J3" is indicated. In order to resume operation, the Upper Half of Machine is opened, jammed paper is removed, and then the Start key is pressed. Then, the Machine returns to its initial screen setting after a blank copy has been reproduced.

The print job sent before the JAM has been cleared.

Printer Mode:

If Exit paper JAM "J3" occurs after a print job has been sent, the job can not be printed because of the "00" indication during warming-up and "1" indication after the warming-up although the jammed paper is removed and the Upper Half of Machine is closed (the machine is reset).

In the case of Paper take-up JAM "PC" and Separating JAM "J2", the jobs sent before these jams can be printed out after the jam has been cleared.

Condition :

Note : It is judged that there is a very small possibility that Exit Paper JAM may occur under the conditions that the original and copy sizes are different.

Service Type  
(Recommendation  
) :

Countermeasure : None

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000682

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Trouble Code/Paper Tray error**

Category :

SW Ver : v1.10

Symptom : If a print job is sent from PC while an original has been misfed, "J8" can not be cleared.

Description : If a print job is sent from PC while an original has been misfed at Automatic Document Feeder, Original JAM "J8" can not be cleared.

Condition :

Note : This accidentally occurs only when a job is sent from PC while an original has been misfed.

Therefore, it is judged that there is a very small possibility of having this in the field.

Within 20 seconds after "J8" is indicated, J8 can be cleared by opening /closing the ADF cover. However if "J8" indication continues for 30 seconds, "J8" has to be cleared by turning the power switch OFF/ON. In this case since the job sent from PC is cleared, the job has to be sent again. This is the same condition for the Machine used as a copier

Service Type  
(Recommendation  
) :

Countermeasure : Turn the power switch OFF-ON.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000683

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **No print/PC hang up**

Category :

SW Ver : v1.10

Symptom : The Machine will not receive a new print job after a print job from PC has been cancelled.

Description : If the C/S key of the Machine is pressed multiple times just after a print job has been sent from PC, the Machine will hang up to stop operation as a printer.

Condition :

Note : It is judged that there is a very small possibility to have this symptom in the field.

The machine can be reset by turning the power switch OFF/ON.

When the Machine is being operated as a copier, print jobs sent from PC have been queued. It takes about 30 seconds after completion of a copy job for the Machine to display "00" and begins to print the queued jobs.

On the other hand, the Machine does not receive copy jobs while printer jobs are being received with its indicator changing from "1" to "00", because the Start key LED lights off .

Under this situation, if users press the C/S key multiple times for prioritizing their jobs, this symptom will occur.

Service Type  
(Recommendation  
) :

Countermeasure : Turn the power switch OFF-ON.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000684

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

SW Ver : v1.10

Symptom : When a print job is sent from PC, paper is automatically taken up from the Universal Tray even though Bypass is selected.

Description :

1. 2 print jobs are sent from PC.  
For the 1st job, Paper source is not selected.  
For the 2nd job, Bypass Tray is selected.
2. Paper empty (Universal Tray) occurs for the 1st job.
3. When paper is replenished into the Universal Tray, paper is automatically taken up from  
the Universal Tray for the 2nd. Job.

<Example>

Setting Tray 1 : No paper

Tray 2 : 1 sheet of Paper

(1)Job1: Paper Source = Auto

a job sent with 3 pages from PC

(2)A sheet of paper is taken up from Tray 2.

Paper empty indicator appears and printing of the job stops.

(3)Paper is replenished into Tray1 and Tray2.

(4)2 sheets of paper are taken up from Tray 2.

(5)Job2:Paper Source =Select Bypass Tray

a job sent with 1 Page.

(6)Paper is automatically taken up from Tray1, although Bypass LED is blinking.

Condition :

**Note :** This is not a very serious problem that paper is taken up automatically from the Universal Tray if no papers are loaded on the Bypass Tray although the Bypass Tray is selected as a paper source.  
It is judged that there is a very small possibility to use the Machine with these conditions.

Service Type  
(Recommendation  
) :

Countermeasure : None

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-000685

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

SW Ver : v1.10

Symptom : When a print job is sent from PC, paper is not taken up from the selected source.

Description : On the Paper Source setting (File/Page Set up/Paper Source) with MS-Word, if 2 different paper sources are set for the job with the multiple pages and print 2 sets or more, there is a possibility that paper cannot be taken up from the selected paper sources, or incorrect paper sources may be displayed on the screen of the Machine.

<Setting example>

Print job : 5 pages 2 sets

Paper Source : First page=Bypass Tray

Other Page = Tray 2

Paper for the 1st page of each set is taken up from Bypass Tray. However paper for the 2nd page and onwards is taken up from the different trays (from Tray 2 for the 1st set and Tray1 for the 2nd set).

Bypass LED is blinking on the display during printing.

Condition :

Note : This can be reproduced with about 30% probability only for 2 or more sets. It is judged that users rarely select 2 paper sources for a job with the multiple pages.

Service Type  
(Recommendation  
) :

Countermeasure : Be sure to send a job separately for each set.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-010286

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : Firmware/Engine Firmware/

Symptom Others/Others

Category :

Symptom : Enabling FLS paper setting for the tray 1

Description : FLS paper (11 inch X 13 inch) setting for the tray 1 (universal tray) was made possible so that some requests for it could be met.

Condition :

Note : The firmware version 2.50 enabling FLS paper setting became available.  
Installing the firmware version 2.50 makes FLS setting added to User's choice "U7(Paper Size Select)".

### <Inch Areas>

Standard (F/W Ver.1.40)

U7-1 : Letter L

2 : Legal L

3 : Half Letter L

Enabling FLS setting (F/W Ver.2.50)

U7-1 : Letter L

2 : Legal L

3 : Half Letter L

4 : A4L

5 : FLS

### <Metric Areas>

Standard (F/W Ver.1.40)

U7-1 : A4L

2 : A5L

Enabling FLS setting (F/W Ver.2.50)

U7-1 : A4L

2 : A5L

3 : Letter L

4 : Legal L

5 : FLS

Areas where the machines with the firmware 2.50 are shipped : 4007-212, 214, 312, 711

Service Type  
(Recommendation  
) :

Countermeasure : None

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-010371

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Hardware//**

Symptom **Misfeed (Paper)/Jam in Exit section**

Category :

Symptom : Gear breakage due to clearing paper jam action

Description : There is a possibility that Gear breakage, D-shaped Hole, at paper take-up section when you try to remove jammed paper in the Universal Tray, a certain amount of load would apply to the Gear (#4110-3010-XX).  
Consequently, the paper feeding cannot be proceeded.

Condition :

Note : In order to improve the strength of D-shaped Hole of the Gear, another Lib has been added.

Please refer to PMN for design.

Previous Part No.: 4110-3010-02

New Part No. : 4110-3010-03

Effective S/No. : From XX006267 and onwards.

Service Type  
(Recommendation  
) :

Countermeasure : Please exchange to new type the Gear.

This symptom No  
fixed/Not by  
SWFW:



# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-010443

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

FW Ver : v2.50

Symptom : Default zoom ratio becomes incorrect if 2in1 is enabled in the default setting.

Description : Condition

C1(Marketing Area)= 1(Metric)

U7(Paper Size Select)= 4(Letter)

Tray 2= A4L

Function= F2(2in1 Non Sort)

UA(Tray Priority)= 4(Paper Feed Unit(PF-116)+Auto Tray Switching)

Set the above conditions and return to the initial screen by pressing the C/S key. 64% is indicated as zoom ratio and the print with the zoom ratio of X0.64 is a smaller scale image while the default tray is set to Tray 2 (A4L). (0.64 should be the zoom ratio for Letter with 2in1 mode.)

Condition :

Note : There are few cases that 2in1 mode is set for the default setting. Also not so many PF-116 are fitted to the copier.

Service Type  
(Recommendation  
) :

Countermeasure : The zoom ratio can be reset to X0.7 by Tray 1 being selected with the Paper Select key after the panel reset works.

This symptom No  
fixed/Not by  
SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-010444

## <Problem Information>

Product PPC(Digital-B/W)\Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

FW Ver : v2.50

Symptom : Main motor does not stop working

Description : Condition

C1(Marketing Area)= 0 (Inch)

U7(Paper Size Select)= 1(Letter)

Copy setting with AF-8

Original= Letter, Copy number: 1

1)Load Legal paper on the Tray1.

2)Main motor continues working if J8 becomes indicated by opening/closing the AF-8 while reading an original.

Condition :

Note : This problem is caused by the operation not allowed by the specification.

Service Type  
(Recommendation  
) :

Countermeasure : None

This symptom No

fixed/Not by

SWFW:

# Technical Knowledge Base

\*\*\* Partner Use \*\*\*

Document # : SED-KB-010445

## <Problem Information>

Product PPC(Digital-B/W)Di151

Information Type : **Firmware/Engine Firmware/**

Symptom **Malfunction/Function failure**

Category :

FW Ver : v2.50

Symptom : The machine automatically starts copying if paper is supplied to the tray not leading to paper empty indication.

Description : Condition

UA (Tray Priority): 3(Paper Tray+Auto Tray Switching) or 4(Paper Feed Unit(PF-116)+Auto Tray Switching)

The copier is designed to start copying again by the Start key being pressed after supplying paper to the tray leading to the Paper Empty indication.

However, the problem symptom occurs if paper is supplied to the tray running out of paper first under the condition of both tray1&2 being empty and the UA being set to 3 or 4(Auto Tray Switching function enabled).

If paper is supplied to the switched tray, the problem does not occur and copying does not start until the Start key is pressed

Condition :

Note :

Service Type  
(Recommendation  
) :

Countermeasure :

This symptom No  
fixed/Not by  
SWFW:

## Supplemental Technical Information

### for Parts Modification Notice

( Document No.: SED-PKD-010059 )

Model	Area
Di151	

#### Symptom Category

General Information/Others

#### Symptom

First Copy Time

#### Description

DI151 sometimes does not start copying just after the Start key has been depressed. It takes more than 11 seconds (more than 15 seconds when copies are made through AF-8 since it takes more time (+4 sec.) for Scanner movement) to make the first copy in case the Start key is depressed just after the Exposure Lamp has gone off. Furthermore under the worst condition it may take approx. 30 seconds. The reason why it takes so long time is that the Di151 checks the light intensity of the Exposure Lamp in order to stabilize it.

#### Countermeasure

Please install the firmware version1.40.

#### Notes

- \* For the Copier Controller, POM version must be up-graded to the new one.
- \* Fax Controller can be up-graded, please , therefore, refer to Technical Information, SED-TI-00050 regarding the procedure.

Implementation: From the beginning of February 2001

Default setting makes the check of light intensity disabled, but it becomes enabled by selecting the Tech.Rep.Choice in the Tech.Rep.Mode.

\* "Ca" and "Cc", which enable or disable the check of the light intensity, have been added.

Ca : Enable or Disable the check of light intensity in the text mode

[ 0(Disable the check: Default), 1(Enable the check)]

Cc : Enable or Disable the check of the light intensity in the photo mode

[ 0(Disable the check: Default), 1(Enable the check)]

With this modification, the Exposure Lamp OFF Time Setting has been changed.

("C8":Default 30seconds ---> 60 seconds).

#### Parts Modification Notice

MO010123

## Supplemental Technical Information

*for Parts Modification Notice*  
( Document No.: SED-PKD-010207 )

Model	Area
Di151	

### Symptom Category

General Information/Others

### Symptom

Main Motor (M1) does not stop running

### Description

The signal asking for paper feed re-try may cause malfunction of the PWB-A.  
As a result the Main motor (M1) does not stop running.

### Countermeasure

The modified firmware of the PWB-A fixes the problem.  
Please replace the PWB-A if the problem occurs.

### Notes

This problem happens only when PWB-A detects ON signal from PS1 (Paper detecting sensor) while the Paper Take-Up solenoid is being ON condition. This solenoid is being ON condition for 0.5 second. However it takes 1 second for fed paper to be detected by PS1. Accordingly there is little possibility that this problem may occur in the fields.

### Parts Modification Notice

MO010093

## Supplemental Technical Information

*for Parts Modification Notice*  
( Document No.: SED-PKD-010286 )

Model	Area
Di151	

### Symptom Category

General Information/Others

### Symptom

Enabling FLS paper setting for the tray 1

### Description

FLS paper (11 inch X 13 inch) setting for the tray 1 (universal tray) was made possible so that some requests for it could be met.

### Countermeasure

None

### Notes

The firmware version 2.50 enabling FLS paper setting became available.

Installing the firmware version 2.50 makes FLS setting added to User's choice "U7(Paper Size Select)".

<Inch Areas>

Standard (F/W Ver.1.40)

U7-1 : Letter L

2 : Legal L

3 : Half Letter L

Enabling FLS setting (F/W Ver.2.50)

U7-1 : Letter L

2 : Legal L

3 : Half Letter L

4 : A4L

5 : FLS

<Metric Areas>

Standard (F/W Ver.1.40)

U7-1 : A4L

2 : A5L

Enabling FLS setting (F/W Ver.2.50)

U7-1 : A4L

2 : A5L

3 : Letter L

4 : Legal L

5 : FLS

### Parts Modification Notice

MO010219

Create Date : 2001/04/10

## Supplemental Technical Information

*for Parts Modification Notice*

( Document No.: SED-PKD-010371 )

Model	Area
Di151	

### Symptom Category

Media Misfeed/Paper Jam

### Symptom

Gear breakage due to clearing paper jam action

### Description

There is a possibility that Gear breakage, D-shaped Hole, at paper take-up section when you try to remove jammed paper in the Universal Tray, a certain amount of load would apply to the Gear. Consequently, the paper feeding cannot be proceeded.

### Countermeasure

Please exchange to new type the Gear.

### Notes

In order to improve the strength of D-shaped Hole of the Gear, another Lib has been added. Please refer to PMN for design.

### Parts Modification Notice

MO010157